

DOCKET NO. **SA- 516**

EXHIBIT NO. **10A**

**NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C**

**FLIGHT DATA RECORDER (FDR)
GROUP CHAIRMAN'S FACTUAL REPORT**

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, D.C. 20594

February 28, 1997

Flight Data Recorder - 10A

**Group Chairman's Factual Report
by Dennis R. Grossi**

A. ACCIDENT

Location: East Moriches, N.Y.
Date: July 17, 1996
Time: 2031 local standard time
Aircraft: Trans World Airlines (TWA) Flt. 800, B-747-131, N93119
NTSB Number: DCA96MA070

B. GROUP

Chairman: Dennis R. Grossi
National Resource Specialist Flight Data Recorders
National Transportation Safety Board

Member: Joseph Bracken
Air Line Pilots Association
Staff Engineer - Accident Investigations

Member: Frank Rock
Engineering
Federal Aviation Administration

Member: Mark Sweepe
Aerodynamics Engineer
Boeing Commercial Airplane Group

Member: Mike Schwarzkopf
Airplane Performance Engineer
Trans World Airlines

Member: Erik Mogelgaard
Special Agent
Federal Bureau of Investigation (FBI)

Member: Craig W. Sayre
Engineering
Pratt & Whitney

①

C. SUMMARY

On July 17, 1996, about 2031 eastern daylight time, a Boeing 747-131, N93119, operated Trans World Airlines Flight 800 (TWA800), crashed into the Atlantic Ocean, about 8 miles south of East Moriches, New York, after taking off from John F. Kennedy International Airport (JFK), Jamaica, New York. All 230 people aboard the airplane were killed. The airplane, which was operated under Title 14 Code of Federal Regulations (CFR) Part 121, was bound for Charles De Gaulle International Airport (CDG), Paris France. The flight data recorder (FDR) and cockpit voice recorder (CVR) ended simultaneously, about 13 minutes after takeoff.

The FDR, a Sundstrand Model UFDR (s/n 10291), was recovered from the Atlantic Ocean on July 24, 1996, and transported to the Safety Board's FDR Laboratory in the custody of the Federal Bureau of Investigation (FBI). The FDR arrived at the Safety Board's Laboratory at approximately 3:00 AM, on July 25, 1996. The damaged recorder was disassembled and the magnetic tape recording medium removed for playback. The initial readout of the recorded data was performed on July 25, 1996.

The following is a brief summary of the data recovered during the accident flight and the prior landing. All times will reference local time unless otherwise noted:

- The data recorded during the approach and landing at JFK prior to the accident flight are consistent with normal operation.
- The FDR operated continuously from the start of the takeoff roll until the recording stopped at 20:31:12, approximately 12 ½ minutes into the flight. The data recorded during this period were consistent with a normal departure and climb.
- The interruption in the recording at 20:31:12 was consistent with the loss of electrical power to the recorder.
- At the time the recording stopped, the data indicate a wings level climb, with the parameters of vertical and longitudinal acceleration indicating normal aircraft loads.
- A correlation of the timing for the last 7 Air Traffic Control (ATC) radio transmissions from flight 800, as recorded by Boston Air Route Traffic Control Center (ARTCC) and the FDR was established.

D. DETAILS OF INVESTIGATION

1. Description of Data

The accident airplane's FDR data were first processed by a Data Acquisition Unit (DAU) and Central Electronics Unit (CEU) before being sent to the FDR via ARINC 563 serial binary data stream. The ARINC 563 data protocol is unique to L1011 and B747 airplanes operated by TWA. The DAU function is to gather and convert analog flight data parameters to digital data for transmission to the CEU. The CEU is a general purpose digital computer with various airplane data functions, one of which is to provide a serial binary data stream to the FDR at a rate of 768 bits/sec.

②

The ARINC 563 serial binary data input to the FDR is time division multiplexed, with parameter identification established by means of word slot and bit position. The data stream is composed of "frames," which are groupings of 43 separate words with each word 12-bits in length. The first word in each frame is a 12-bit synchronization (sync) word. Because the CEU produces 768 bits per second (64 separate 12-bit words), the sync words appear in the data stream every 0.67188 seconds (43 divided by 63)¹. The data stream is "in sync" when the sync words appear at the proper 43-word interval. If the data stream is interrupted or corrupted in some way, the sync word will not be found at the proper interval, and the time reference will be lost until the pattern can be re-established.

The data stream is passed from the CEU to the FDR, where it is held in one of two RAM² buffers until a full 768 bits have been stored. When the FDR's buffer is full, an 8-bit preamble and an 8-bit postamble are added to identify the beginning and the end of each data block. The data are then recorded onto ¼-inch magnetic tape within a crash-protected enclosure. While a completed data block is being transferred from one buffer to the tape, input data from the CEU are stored in the other buffer.

The FDR's 8 track tape moves at 5 inches per second (ips), and records on one track at a time. Data are written on the tape at the rate of 11.4 kilo bits per second; consequently, since the tape is moving at 5 ips, approximately 0.36 inches of tape are required to record a one second segment of data.

This model FDR also uses a continuous Checkstroke™ data checking process where it writes 1 second of data to tape, rewinds the tape to the beginning of the 1 second data block it just wrote (reading the tape data while rewinding), compares the tape data to the buffer data, advances the tape slightly past the end of the block it just wrote³, and then starts the Checkstroke™ process all over again for the next second of data. If the FDR finds 8 consecutive seconds of Checkstroke™ mis-compare, it will send an indication of an FDR fault to the flightcrew.

The oldest FDR data are erased before recording the newest FDR data. End-of-tape sensors at both ends of the tape provide the signal to reverse the drive motor direction and switch the record electronics to the next track. Recording time for one end-to-end pass on the tape track is 3.125 hours. There are 8 tracks, thus the recorder will continuously record and retain the last 25 hours of flight data.

2. Examination of Recorder

The FDR was extensively damaged by impact. However, the crash enclosure remained intact, and the tape recording medium displayed no evidence of mechanical damage or excessive wear. The unspooled portion of the tape showed some discoloration. The tape

¹ As a result of the .67 second interval between sync words, the per-second sample rate for each parameter is equal to the number of samples per frame divided by 0.67188. For example, vertical acceleration is sampled 3 times per frame, or $3/0.67188 = 4.47$

² The Random Access Memory (RAM) consist of two static CMOS 256 x 4 chips.

³ The "no data" area created by the slight tape advance at the end of each data block is referred to as the inter-record gap.

discoloration and staining was most evident on the portion of the tape that was in contact with the recording and playback heads. There was no evidence of fire damage.

3. Readout and Evaluation

a. Readout

The original magnetic tape recording medium was removed from the damaged FDR, cleaned, dried and mounted on an tape transport for playback. The data were transcribed to a disk file for further processing.

The transcription process utilized the Safety Board's Recovery Analysis and Presentation System (RAPS). RAPS processes the raw analog wave form signal from an original or copy tape. The unshaped Bi-Phase data output produced by the FDR is digitized and decoded into binary data. RAPS also removes the preamble and postamble from the data stream and performs sync detection. When sync is lost the digitized wave form for the problem data are stored for further analysis.

The data were reduced from the recorded decimal values (0 to 4095) to engineering units and discrete values (e.g., feet, degrees, knots, on, off, etc.) by conversion algorithms obtained from the operator. Attachment I contains a listing of all recorded parameters.

b. Evaluation

An examination of the recovered data indicated that the FDR operated normally. However, some parameters recorded anomalous or erratic values.

Two sync losses occurred during the flight. The first loss, which occurred at 20:25:21, was the result of a distortion in the recorded wave form. The second sync loss occurred at 20:26:20 and involved an invalid sync word. In both instances the wave form analysis feature of RAPS was used to recover all of the data from the problem areas.

The recovered data contained some random anomalous values for nearly every parameter. However, the following parameters contained frequent data anomalies during Flight 800 and prior flights:

Aileron Position - The recorded values were noisy and erratic.

Thrust Reverse Engine No. 3 - During the landing at JFK, the "Transit" indication was displayed during the period that the other 3 engines were indicating a "Deployed" condition. The thrust reverser on engine number 3 had been locked out during previous maintenance, and was being carried as a Minimum Equipment List (MEL) item.

Altitude Coarse - Indicated erroneous altitude values and was unusable.

Altitude Fine - Occasionally displayed noisy values.

(4)

Leading Edge Flap Left No. 3 Transit - With the flaps retracted, the "Transit" indication remained on. With the flaps in the extend position the "Transit" condition indicated "Extended". The maintenance log contains the following entry: "July 15th, 3L LE flap Amber Lt. Stays on with LE Flaps Up and Retracted electrically. FWD panel lights ops check O.K."

Indicated Airspeed - The recorded values were occasionally erratic.

Due to the absence of valid altitude-coarse data, the altitude time history was computed from the parameter altitude-fine. The parameter altitude-fine records values from 0 to 5,000 feet, cycling through zero at 5,000 foot increments. Normally the parameter altitude-coarse is referenced to determine pressure altitude values outside the 0 to 5,000 foot range. The absence of valid altitude coarse values will not affect the quality of the computed pressure altitude time history.

When TWA Flight 800 took the active runway prior to takeoff, the actual pressure altitude at the runway surface was negative 135 feet ($12' \text{ runway elevation} + (-147') \text{ sea level pressure altitude}^4$). The pressure altitude values recorded while on the runway and shortly after liftoff were negative because the barometric pressure was higher than 29.92" Hg.

The altitude fine values ascended through the maximum value (5,000 feet) 3 times during the accident flight, with the first transition occurring shortly after takeoff. In order to derive the FDR pressure altitudes, the altitude fine values (4,895 feet) recorded while the airplane was on the runway and not moving, were converted by subtracting 5,000 feet. This produced a negative 105 feet FDR pressure altitude while on the runway. The FDR altitude-fine values following the first transition required no correction. The altitude-fine values recorded following the next two 5,000 foot transitions were incremented by 5,000 and 10,000 feet, respectively.

All of the FDR-derived pressure altitude values were increased by 127 feet to obtain Mean Sea Level (MSL) altitude values. The altitude in feet MSL were computed as follows:

$$\text{MSL Altitude (ft.)} = \text{FDR pressure altitude (ft.)} + 127 \text{ ft.}$$

$$\text{Where; } 127 \text{ feet} = 12 + 10 + 105$$

-105 feet (pressure altitude recorded while on runway)

12 feet (runway elevation)

10 feet (approximate elevation of altitude sensor above runway)

E. Boston ARTCC, DFDR & CVR Time Correlation

The local time reference was established through the correlation of the last 7 VHF radio transmissions made by TWA 800 and recorded by the FDR, CVR and Boston ARTCC. The following table displays the correlation point and the corresponding transmission times:

⁴ The following barometric pressure observation were recorded at JFK (23:23z , 7/17, 30.07 inches of Hg.) (00:51z, 7/18, 30.08 inches of Hg.). A barometric pressure of 30.08 inches of Hg. = -147 feet at sea level.

CVR, FDR and Boston Center Time Correlation

CVR (Min:Sec.*)			Boston Center *			FDR Mic Keying (Actual)			FDR Mic Keying (Adjusted)**		
start	end	delta	start	end	delta	open	closed	delta	open	closed	delta
24:41.7	24:48.9	7.20	0024:41.8	0024:49.1	7.30	0024:41.48	0024:49.49	8.01	0024:41.80	0024:49.10	7.30
24:53.4	24:56.7	3.30	0024:53.5	0024:56.8	3.30	0024:52.87	0024:56.88	4.01	0024:53.50	0024:56.80	3.30
25:34.5	25:42.1	7.60	0025:34.6	0025:42.2	7.60	0025:33.88	0025:42.55	8.67	0025:34.60	0025:42.20	7.60
25:47.1	25:53.3	6.20	0025:47.2	0025:53.4	6.20	0025:46.65	0025:53.33	6.68	0025:47.20	0025:53.33	6.13
26:30.3	26:34.3	4.00	0026:30.3	0026:34.3	4.00	0026:29.66	0026:34.28	4.62	0026:30.30	0026:34.28	3.98
28:20.6	28:23.7	3.10	0028:20.8	0028:23.9	3.10	#	#	n/a	#0028:20.80	#0028:23.90	3.10
30:19.2	30:23.7	4.50	0030:19.4	0030:23.9	4.50	0030:18.74	0030:24.06	5.32	0030:19.40	0030:23.90	4.50

* TWA 800 transmissions recorded by Boston Center. Time in UTC (local time 2000 EDT)

** The duration of each ATC transmission made by TWA 800 and recorded by Boston Center was applied to determine the precise start and stop times displayed

This transmission was overlapped by a transmission to TWA's Flight Information Center from a second transmitter. Therefore, the start and termination of this transmission was established from the corresponding transmission recorded by the CVR and Boston Center. This FDR system groups all VHF transmissions into a single discrete parameter. Therefore, overlapping transmissions from any of the 3 VHF transmitters will be recorded by the FDR as a single transmission.

The correlation points all agreed to within a second. The FDR samples microphone keying for $1/768^{\text{th}}$ of a second every 0.671875 seconds. Therefore, if the microphone is keyed just after the microphone discrete is interrogated it will not be recorded until 0.67 second have elapsed when the next sample is taken. If it is keyed for less than a 0.67 seconds it may not be recorded at all. The radio transmission referenced in the ARTCC and CVR transcript, were established by the CVR specialist manually recording the start and stop of each event.

The FDR data stream was also examined to determine the data resident in the volatile read write buffer at the time power to the DFDR was lost. The read/write buffer can store from 175 to 885 data bits, depending on where in the read/write cycle power is interrupted. In this instance, the power was interrupted as the first 2 bits of the 8 -bit postamble were being written. At this point in the read/write cycle the buffer memory contains the minimum number of bits. Therefore, the last approximately 0.23 seconds of data could not be written to the recording medium when power was removed from the recorder ($175 / 768 \text{ bit per second} = 0.2278 \text{ seconds}$).

The loss of power to the CVR and FDR correlate to within a quarter of a second. The CVR factual report places the end of the CVR recording at 20:31:12.5. The time of the last recorded FDR altitude-fine value is 20:31:11.56. There were 372 bits recorded between the last altitude fine value and the end of the recording. Therefore, the end of the FDR recording can be computed as follows:

20:31:11.56 (time last altitude fine value recorded)

00:00:00.48 ($372/768 = 0.48 \text{ seconds between last altitude fine value and end of recording}$)

00:00:00.23 (number of seconds retained in the volatile write buffers but not recorded)

20:31:12.27 (loss of power to FDR)

6

F. Data Printout

Attachment II contains a tabular printout of selected parameters from 20:18:40 to the end of the data recorded for Flight 800:

Local Time	MSL Altitude	IAS (Airspeed)
Roll Angle	Elevator Position Right	Magnetic Heading
Pitch Angle	Longitudinal Acceleration	Vertical Acceleration
EPR Engines (1-4)	Rudder Position (upper)	Angle of Attack
VHF (Microphone Keying)	Pitch Trim Stab Position	

A tabular printout of the remaining parameters recorded during the accident flight, and all parameters for an approximate 3 minute period covering the prior landing at JFK are in an Addendum to this report which is contained in the Public Docket under separate cover. The trailing edge flap parameters (lt. & rt. Inboard) and (lt. & rt. Outboard) have been combined as Inboard and Outboard in the tabular listings.

G. Data Plots

Attachment III contains the following 13 parameters plotted as a function of local time. The data are presented in 8 successive plots starting at 20:18:40 and continuing to the end of the data recorded for Flight 800:

MSL Altitude	VHF (Microphone Keying)	IAS (Airspeed)
Roll Angle	Elevator Position Right	Magnetic Heading
Pitch Angle	Longitudinal Acceleration	Vertical Acceleration
EPR Engines (1-4)	Rudder Position (upper)	Angle of Attack
Pitch Trim Stab Position		



Dennis R. Grossi
National Resource Specialist Flight Data Recorders

ATTACHMENT I

Parameter Listing



PARAMETER NAME	RESOLUTION	WORD LOCATION(S)
1. TIME	1/768 SEC.	1
2. PRESSURE ALTITUDE COURSE PRESSURE ALTITUDE FINE	135 FT. 5 FT.	16 17
3. AIRSPEED	.5 KNOT	38
4. VERTICAL ACCELERATION	0.009 "G"	11,29,42
5. LONGITUDINAL ACCELERATION	0.002 "G"	12,30,43
6. ANGLE OF ATTACK	0.15 °	15,33
7. MAGNETIC HEADING	0.356°	18
8. PITCH ATTITUDE	0.356°	19
9. ROLL ATTITUDE	0.356°	20
10. PITCH TRIM (STAB)	0.045	27
11. AILERON POSITION RT. INBD.	.02	28
12. ELEVATOR POSITION RT. ELEVATOR POSITION LT.	.0549	21,22
13. RUDDER POSITION UPPER. RUDDER POSITION LOWER.	.09	13,31 14,32
14. FLAP POSITION RT. INBOARD FLAP POSITION LT. INBOARD FLAP POSITION LT. OUTBOARD FLAP POSITION RT. OUTBOARD	*	23 24 25 26
15. LEADING EDGE LT. SET 1 LEADING EDGE LT. SET 2 LEADING EDGE LT. SET 3 LEADING EDGE LT. SET 4 LEADING EDGE RT. SET 1 LEADING EDGE RT. SET 2 LEADING EDGE RT. SET 3 LEADING EDGE RT. SET 4	<i>Discrete Values</i> EXT = Extend TRANS = Transit RETRCT = Retract	39 (bits 10-11) 39 (bits 7 - 9) 39 (bits 5 - 6) 39 (bits 2 - 3) 40 (bits 10-11) 40 (bits 7 - 9) 40 (bits 5 - 6) 40 (bits 2 - 3)
16. EPR ENGINE NO. 1 EPR ENGINE NO. 2 EPR ENGINE NO. 3 EPR ENGINE NO. 4	.001	34 35 36 37
17. THRUST REVERSER ENG 1 THRUST REVERSER ENG 2 THRUST REVERSER ENG 3 THRUST REVERSER ENG 4	<i>Discrete Values</i> TRANS = Transit STOW = Stow DEP = Deploy	41 (bits 6 & 11) 41 (bits 5 & 10) 41 (bits 3 & 9) 41 (bits 2 & 7)
18. VHF 1,2&3 Microphone Keying	<i>Discrete Values</i> KEY = Keyed OFF = Not Keyed	39 (bit 1)

* Non linear parameter defined with two unique equations.

ATTACHMENT I I

Tabular Data

10

TWA Flt. 800

B747-131, Takeoff to End of Data
Tabular Data No. 1, Created: January 09, 1997

National Transportation Safety Board

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel. (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
20:18:40	22.00	83	-0.7	0.0	222	-1	4.14 3.96	-25 -25	1.02	1.01	1.01	1.01	0.00 0.00 0.00	0.97 0.97 0.97	Off	6
20:18:41	22.00 22.00	83 83	-0.7 -0.7	0.0 0.0	223 223	-1 -1	3.96 3.96 3.78 3.69	-25 -25 -25 -25	1.02	1.01	1.01	1.01	0.01 0.00 0.00 0.00	0.96 0.97 0.97 0.96	Off Off	6 6
20:18:42	22.00	83	-0.7	0.0	224	-1	2.88 2.43	-25 -25	1.02	1.01	1.01	1.01	0.00 0.00 0.00 0.01	0.97 0.96 0.97 0.96	Off	6
20:18:43	22.00 22.00	83 83	-0.7 -0.7	0.0 0.0	224 224	-1 -1	1.89 1.53 1.17	-21 -25 -21	1.02	1.01	1.01	1.01	0.01 0.00 0.00 0.00	0.96 0.96 0.96 0.96	Off Off	6 6
20:18:44	22.00	83	-0.7	0.0	225	-1	0.72 0.27 -0.09	-25 -25 -25	1.02	1.01	1.01	1.01	0.01 0.00 0.00 0.01	0.95 0.97 0.96 0.96	Off	6
20:18:45	22.00 22.00	83 83	-0.7 -0.7	0.0 0.0	224 225	-1 -1	-0.90 -1.35 -1.53 -1.53	-25 -25 -25 -25	1.02	1.01	1.01	1.01	0.01 0.00 0.00 0.01	0.96 0.96 0.97 0.96	Off	6 6
20:18:46	22.00	83	-0.7	0.0	225	-1	-1.26 -1.08	-25 -25	1.02	1.01	1.01	1.01	0.01 0.01 0.01 0.01	0.96 0.96 0.97 0.96	Off Off	6
20:18:47	22.00 22.00	83	-0.7 -0.7	0.0 0.0	225 225	-1 -1	-0.72 -0.63 -0.72 -0.72	-25 -25 -25 -25	1.02	1.00	1.01	1.01	0.01 0.00 0.01 0.01	0.96 0.97 0.95 0.97	Off	6 6
20:18:48	22.00	266 83	-0.7	0.0	225	-1	-0.72 -0.63	-21 -25	1.03	1.01	1.02	1.01	0.01 0.01 0.01 0.01	0.95 0.97 0.96 0.96	Off Off	6
20:18:49	22.00 22.00	83	-0.7 -0.7	0.0 0.0	225 226	-1 -1	-0.54 -0.54 -0.63 -0.54	-25 -25 -25 -25	1.04	1.01	1.03	1.03	0.01 0.01 0.02 0.02	0.96 0.96 0.96 0.96	Off	6 6
20:18:50	22.00	42 42	-0.7	0.0	226	-1	-0.45 -0.18	-25 -25	1.07	1.02	1.04	1.04	0.02 0.03 0.03 0.04	0.97 0.96 0.96 0.97	Off Off	6
20:18:51	22.00 22.00	42	-0.7 -0.7	0.0 0.0	226 226	-1 -1	-0.18 -0.18 -0.18 -0.18	-25 -25 -22 -19	1.09	1.03	1.07	1.07	0.04 0.04 0.05 0.05	0.97 0.97 0.96 0.96	Off	6 6
20:18:52	22.00	42 42	-0.7	0.1	226	-1	-0.18 -0.09	-17 -15	1.10	1.04	1.08	1.08	0.06 0.06 0.06 0.07	0.96 0.97 0.97 0.97	Off Off	6
20:18:53	22.00 22.00	42	-0.7 -0.7	-0.1 0.0	226 226	-1 -1	0.00 0.00 0.72 1.62	-10 -12 -13	1.11	1.07	1.10	1.10	0.07 0.08 0.08 0.08	0.96 0.96 0.97 0.97	Off	6 6
20:18:54	22.00	48 42	-0.7	0.0	226	-1	2.34 2.97	-12 -11	1.11	1.09	1.11	1.11	0.09 0.09 0.09 0.10	0.96 0.96 0.96 0.96	Off	6
20:18:55	22.00 22.00	42	-0.7 -0.7	0.0 0.1	226 226	-1 -1	4.05 4.23 4.50	1 1 1	1.13	1.11	1.13	1.13	0.10 0.10 0.10 0.11	0.96 0.96 0.97 0.96	Off	6 6
20:18:56	27.00	42 54	-0.7	0.0	229	-1	4.68 5.85 6.03	1 1 1	1.15	1.12	1.14	1.15	0.12 0.12 0.13 0.13	0.96 0.97 0.96 0.97	Off Off	6
20:18:57	22.00 22.00	42	-0.7 -0.7	0.0 0.0	226 226	-1 -1	6.57 6.57 6.75	1 1 2	1.19	1.16	1.18	1.19	0.13 0.13 0.14 0.14	0.96 0.96 0.98 0.97	Off	6 6
20:18:58	22.00	42 52	-0.7	0.0	226	-1	6.48 5.94 5.31	1 2 2	1.21	1.17	1.19	1.21	0.15 0.15 0.16 0.16	0.97 0.96 0.97 0.98	Off Off	6
20:18:59	27.00 22.00	48	-0.4 -0.7	-2.3 -3.1	228 226	-1 -1	5.13 5.04	2 2	1.28	1.21	1.24	1.30	0.17 0.17 0.18 0.18	0.97 0.95 0.95 0.95	Off	6 6
20:19:00	22.00	42 42	-0.4	-7.7	226	-1	5.22 5.31 5.49	2 2 2	1.31	1.22	1.26	1.33	0.18 0.18 0.19 0.20	0.95 0.98 0.97 0.95	Off Off	6
20:19:01	22.00	42	-0.4	-6.6	226	-1	5.49	2	1.35	1.24	1.30	1.35	0.19 0.19 0.19 0.20	0.97 0.97 0.98 0.93	Off	6
20:19:02	22.00	42 44	-0.4	-6.3	226	-1	5.31 5.31 4.95	2 3 3	1.36	1.25	1.31	1.35	0.20 0.20 0.20 0.20	0.94 0.99 0.98 0.93	Off Off	6 6
20:19:03	22.00 22.00	54	-0.4 -0.4	-7.9 -8.2	226 226	-1 -1	3.69 0.36 0.45	3 3 3	1.37	1.32	1.32	1.73	0.21 0.21 0.21 0.21	0.98 0.98 0.98 0.94	Off	6
20:19:04	22.00	46 48	-0.4	-7.8	226	-1	0.00 0.00 -2.43	3 3 3	1.37	1.35	1.32	1.37	0.21 0.21 0.21 0.21	0.98 0.98 0.98 0.96	Off Off	6 6

12

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (up/down) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel. (g)	Vert. Accel. (g)	VHF	Pitch Trim Pos (degrees)
20:19:05	22.00 22.00	51	-0.7 -0.7	-7.1 -6.6	226 226	-1 0	-7.29 -9.45 -8.19	4 4 3	1.37	1.38	1.33	1.37	0.21 0.21 0.21 0.21 0.20	0.96 0.94 0.95 0.94 0.97	Off	6
20:19:06	22.00	53 54	-0.7	-7.1	226	-1	-7.56 -1.71 -1.80	3 4 4	1.37 1.37	1.38 1.38	1.34 1.34	1.37 1.37	0.21 0.21 0.22 0.21	0.97 0.97 0.88 0.94	Off Off	6 6
20:19:07	22.00 22.00	56	-0.7 -0.7	-7.6	226 226	-1 -1	-3.60 -5.04 -5.76	3 4 3	1.37	1.38	1.34	1.37	0.21 0.21 0.20 0.21 0.21 0.20	1.00 0.95 0.95 0.94 0.93 0.97	Off	6
20:19:08	22.00	63 60	-0.7	-6.6 -7.6	226	-1	-5.49 -2.43 -0.45	3 3 4	1.37 1.37	1.38 1.38	1.34 1.34	1.37 1.37	0.21 0.21 0.21	0.99 0.94	Off Off	6 6
20:19:09	22.00 22.00	64	-0.7 -0.7	-7.4	225 225	-1 0	-0.63 -2.34 -5.13	4 3 4	1.36	1.38	1.34	1.37	0.21 0.21 0.21 0.20 0.20	0.98 0.92 0.97 1.00 0.97	Off	6
20:19:10	22.00	68 70	-0.7	-7.4 -7.1	225	0	-4.32 -4.59 -3.78	4 3 5	1.36	1.37	1.34	1.37	0.21 0.20 0.20 0.21 0.20	0.92 0.98 0.99 0.98 0.99	Off Off	6 6
20:19:11	27.00 22.00	70	-0.7	-7.0	225 225	0	-3.60 -2.16 -1.89	4 6 3	1.36	1.36	1.33	1.37	0.20 0.21 0.20 0.19 0.19	0.98 1.00 0.92 0.94 0.98	Off	6
20:19:12	22.00	75 89	-0.7 -0.7	-7.6 -8.4	225	0	0.00 0.90 2.43	4 4 4	1.35	1.35	1.33	1.37	0.20 0.19 0.20 0.20 0.19	0.96 0.98 0.97 0.98 0.98	Off Off	6 6
20:19:13	22.00 22.00	86	-0.7	-8.0	225	-1	-0.72 -1.80 -4.32	4 4 4	1.35	1.35	1.34	1.37	0.19 0.19 0.19	0.97 0.96 0.98	Off	6
20:19:14	22.00	82 87	-0.7 -0.7	-7.1 -5.9	225 226	-1 -1	-6.12 -7.29 -7.20	3 3 3	1.35	1.35	1.34	1.37	0.19 0.20 0.19 0.19 0.19	0.97 0.95 0.95 0.99 0.98	Off Off	6 6
20:19:15	27.00	86	-0.7	-5.9	226	-1	-5.85 -5.13 -3.51	3 3 3	1.35	1.35	1.34	1.37	0.19 0.19 0.19	0.94 0.95 0.96	Off	6
20:19:16	27.00 27.00	92 94	-0.7 -0.7	-6.7 -7.4	226 226	0	-2.79 0.72 -0.54	3 3 4	1.35	1.35	1.34	1.37	0.19 0.19 0.19 0.18 0.19	0.95 0.97 0.94 0.96 0.94	Off Off	6 6
20:19:17	27.00	97	-0.7	-7.0	225	0	-0.90 -0.18 -0.90	3 3 3	1.35	1.35	1.34	1.37	0.18 0.18 0.19	0.93 0.98 0.93	Off	6
20:19:18	27.00 27.00	101 102	-0.7 -0.7	-6.3 -6.5	225 225	0	-0.36 0.18 -0.18	3 3 3	1.35	1.34	1.34	1.37	0.18 0.18 0.19 0.18 0.18	0.98 0.98 0.95 0.94 0.97	Off Off	6 6
20:19:19	27.00	104	-0.7	-6.7	225	0	-0.36 -0.18	3 3	1.35	1.34	1.34	1.36	0.17 0.19 0.18	0.94 0.96 0.98	Off	6
20:19:20	27.00 27.00	107 86	-0.7 -0.7	-7.0 -6.6	225 225	0	-0.54 -0.54 -2.61 -3.24	3 3 3 3	1.35 1.35	1.34 1.34	1.34 1.34	1.36 1.36	0.18 0.18 0.18 0.18	0.95 0.94 0.94 0.98	Off Off	6 6
20:19:21	27.00	86	-0.7	-6.2	225	0	-2.79 -2.07	3 4	1.35	1.34	1.34	1.36	0.18 0.18 0.17	0.94 0.90 0.98	Off	6
20:19:22	27.00 32.00	111 90	-0.7 -0.7	32.9 -6.6	225 228	0 -4	0.00 0.18 0.09	3 3 3	1.35 1.35	1.34 1.34	1.34 1.34	1.36 1.36	0.18 0.17 0.17	0.97 0.98 0.96	Off Off	6 6
20:19:23	27.00	110	-0.7	-5.8	225	0	-0.81 -1.89 -3.51	3 3 3	1.35	1.34	1.34	1.36	0.17 0.18 0.17 0.18	0.96 0.98 0.97 0.94	Off	6
20:19:24	27.00 27.00	88 122	-0.7 -0.7	-5.5 -4.9	225 225	0	-3.06 -0.09	3 3	1.35 1.35	1.33 1.33	1.34 1.34	1.35 1.36	0.17 0.17	0.98 0.93	Off Off	6 6
20:19:25	27.00	124	-0.7	-4.3	225	0	0.72 -1.17 -1.53 -2.61	3 3 3 3	1.35	1.33	1.34	1.36	0.17 0.16 0.17 0.16 0.17	0.97 0.98 0.94 0.97 0.98	Off	6
20:19:26	27.00 27.00	124 128	-0.7 -0.4	-4.0 -3.8	225 225	0	0.09 0.45 0.18 0.00	3 3 3 3	1.35 1.35	1.33 1.33	1.34 1.34	1.36 1.36	0.17 0.16 0.16 0.17	0.95 0.95 0.97 0.98	Off Key	6 6
20:19:27	32.00	130	-0.7	-3.3	228	0	-2.25 -2.25	3 2	1.35	1.33	1.34	1.36	0.17 0.16 0.16 0.17	0.93 0.95 0.98 0.98	Key	6
20:19:28	27.00 27.00	99 99	-0.4 -0.4	-3.7 -3.6	225 225	0	0.00 0.00 0.00 0.00	3 3 3 3	1.35 1.35	1.33 1.33	1.34 1.34	1.36 1.36	0.16 0.16 0.16 0.16	0.95 0.93 0.96 1.00	Off	6 6
20:19:29	27.00	100	-0.4	-2.5	225	0	-1.08 -1.62	3 3	1.34	1.33	1.34	1.36	0.16 0.17 0.15 0.16	0.95 0.95 1.01 0.93	Off Off	6

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
20:19:30	27.00 27.00	100	-0.4 -0.4	-2.1 -1.6	225 225	0 0	-1.17 -1.80 -1.71 -1.17	3 3 3 3	1.34 1.34 1.34 1.34	1.33 1.33 1.34 1.36	1.34 1.34 1.34 1.36	1.36 1.36 1.36 1.36	0.17 0.16 0.16 0.17 0.16 0.16 0.16 0.16	0.90 0.94 0.99 0.93 0.95 0.96 0.97 0.97	Off Off Off Off	6 6 6 6
20:19:31	27.00	104 105	-0.4	-1.9	225	0	0.18 0.36	4 3	1.34 1.33	1.33 1.34	1.34 1.34	1.36 1.36	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.95 0.95 0.98 0.98 0.98 0.98 0.97 0.97	Off Off Off Off	6 6 6 6
20:19:32	27.00 22.00	105	-0.4 -0.4	-1.5 -1.5	227 225	0 1	0.09 -1.26 -1.35 -1.26	3 3 3 3	1.35 1.34 1.33 1.34	1.33 1.33 1.34 1.36	1.34 1.34 1.34 1.36	1.36 1.36 1.36 1.36	0.15 0.16 0.16 0.16 0.15 0.16 0.16 0.16	0.95 0.98 0.98 0.98 0.96 0.98 0.97 0.97	Off Off Off Off	6 6 6 6
20:19:33	22.00	106 110	-0.4	-1.2	225	1	-1.53 -2.34	3 3	1.34 1.33	1.33 1.34	1.34 1.34	1.36 1.36	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.95 0.95 0.97 0.97 0.97 0.97 0.97 0.97	Off Key Off Off	6 6 6 6
20:19:34	22.00 22.00	110	0.0 0.0	-0.9 0.8	225 225	1 1	-1.17 -1.35 -0.09 0.09	3 3 3 3	1.34 1.33 1.34 1.33	1.33 1.33 1.34 1.35	1.34 1.34 1.34 1.35	1.35 1.35 1.35 1.35	0.16 0.16 0.16 0.16 0.15 0.16 0.16 0.16	0.96 0.96 0.96 0.96 0.95 0.96 0.96 0.96	Off Off Off Off	6 6 6 6
20:19:35	22.00	113 150	0.4	3.2	225	1	-0.18 -1.08	4 3	1.34 1.34	1.33 1.33	1.34 1.34	1.36 1.36	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Off Off Off Off	6 6 6 6
20:19:36	22.00 22.00	118	0.7 1.4	3.9 4.6	225 228	1 1	-1.80 -1.89 -1.62 -1.62	4 4 4 4	1.34 1.33 1.34 1.33	1.33 1.33 1.34 1.36	1.34 1.34 1.34 1.36	1.36 1.36 1.36 1.36	0.17 0.17 0.18 0.18 0.18 0.18 0.18 0.18	0.98 0.98 0.93 0.95 0.96 0.96 0.96 0.96	Off Off Off Off	6 6 6 6
20:19:37	12.00	120 156	2.5	4.9	226	1	-1.44 -1.35	4 4 4	1.34 1.34 1.33	1.33 1.33 1.34	1.67 1.34 1.34	1.35 1.36 1.36	0.19 0.19 0.19 0.20 0.21 0.21 0.21 0.21	0.98 0.97 0.96 0.95 0.95 0.96 0.96 0.96	Off Off Off Off	6 6 6 6
20:19:38	12.00 7.00	156	3.6 4.3	4.8 5.3	226 226	1 1	-1.17 -0.99 -1.08	5 6 6	1.34 1.33 1.34	1.33 1.33 1.34	1.34 1.34 1.36	1.36 1.36 1.36	0.21 0.21 0.21 0.22 0.22 0.22 0.22	0.96 0.96 0.96 0.96 0.94 0.94 0.94	Off Off Off Off	6 6 6 6
20:19:39	7.00	126 128	5.8	5.8	226	1	-1.08 -1.26 -1.26	7 7 7	1.34 1.34 1.33	1.33 1.33 1.34	1.34 1.34 1.34	1.35 1.35 1.35	0.22 0.23 0.23 0.24 0.24 0.24 0.24	0.95 0.97 0.98 0.96 0.97 0.97 0.99	Off Off Off Off	6 6 6 6
20:19:40	2.00 -3.00	128	6.5 7.9	7.3 7.4	226 226	1 1	-0.99 -0.54 -0.54	8 8 9	1.34 1.33 1.34	1.33 1.33 1.34	1.34 1.34 1.35	1.35 1.35 1.35	0.24 0.25 0.26 0.26 0.26 0.26 0.26	0.98 0.98 0.98 0.94 0.94 0.94 0.94	Off Off Off Off	6 6 6 6
20:19:41	2.00	134 162	9.7	7.4	229	0	-0.90 -1.35 -1.26	10 10 11	1.34 1.34 1.33	1.33 1.33 1.34	1.34 1.34 1.35	1.35 1.35 1.35	0.25 0.26 0.26 0.28 0.28 0.28 0.29	0.98 0.98 1.02 1.02 1.05 1.07 1.08	Off Off Off Off	6 6 6 6
20:19:42	-3.00 7.00	131	10.8 11.2	7.6 7.8	225 225	0 0	-0.72 -0.36 -0.18	11 11 11	1.34 1.33 1.34	1.33 1.33 1.34	1.34 1.34 1.35	1.35 1.35 1.35	0.29 0.29 0.29 0.29 0.29 0.29 0.29	1.06 1.06 1.07 1.08 1.07 1.07 1.07	Off Off Off Off	6 6 6 6
20:19:43	12.00	131 136	11.5	7.9	225	0	-0.36 -0.63 -1.08	11 11 11	1.34 1.34 1.33	1.33 1.33 1.34	1.34 1.34 1.35	1.35 1.35 1.35	0.28 0.28 0.28 0.28 0.28 0.28 0.28	1.07 1.05 1.06 1.04 1.04 1.04 1.04	Off Off Off Off	6 6 6 6
20:19:44	27.00 42.00	136	12.2 12.2	7.4 6.9	225 225	-1 -1	-1.35 -1.44 -1.35	11 11 11	1.34 1.33 1.33	1.33 1.33 1.33	1.33 1.33 1.35	1.35 1.35 1.35	0.27 0.27 0.27 0.27 0.27 0.27 0.27	1.05 1.05 1.04 1.04 1.04 1.04 1.04	Off Off Off Off	6 6 6 6
20:19:45	57.00	134 166	13.3	5.9	225	-1	-1.17 -0.72 -0.72	11 11 12	1.34 1.34 1.33	1.33 1.33 1.33	1.33 1.33 1.35	1.35 1.35 1.35	0.27 0.28 0.28 0.28 0.28 0.28 0.28	1.06 1.07 1.07 1.08 1.07 1.07 1.08	Off Off Off Off	6 6 6 6
20:19:46	72.00 97.00	154	14.8 15.5	4.8 4.5	226 226	-1 -1	-0.90 -1.17 -1.08	12 12 11	1.34 1.33 1.33	1.33 1.33 1.33	1.33 1.35 1.35	1.35 1.35 1.35	0.28 0.29 0.29 0.28 0.28 0.28 0.28	1.10 1.10 1.09 1.09 1.08 1.08 1.08	Off Off Off Off	6 6 6 6
20:19:47	127.00	166 167	15.8	4.1	226	-1	-0.72 -0.18 -0.09	11 11 11	1.34 1.33 1.33	1.32 1.32 1.33	1.33 1.33 1.35	1.35 1.35 1.35	0.28 0.28 0.28 0.28 0.28 0.28 0.28	1.07 1.07 1.07 1.07 1.07 1.07 1.07	Off Off Off Off	6 6 6 6
20:19:48	152.00 177.00	166	16.6 16.9	3.0 2.3	226 226	-1 -1	-0.36 -0.36 -0.45	11 11 11	1.33 1.33 1.33	1.32 1.32 1.33	1.33 1.33 1.34	1.34 1.34 1.34	0.27 0.27 0.27 0.27 0.27 0.27 0.27	1.06 1.06 1.06 1.06 1.05 1.04 1.04	Off Off Off Off	6 6 6 6
20:19:49	207.00	164 164	16.6	1.7	226	-1	-0.45 -0.54 -0.72	11 11 11	1.33 1.33 1.33	1.32 1.32 1.33	1.33 1.34 1.34	1.34 1.34 1.34	0.27 0.27 0.26 0.26 0.26 0.26 0.26	1.05 1.05 1.04 1.01 0.98 0.98 0.98	Off Off Off Off	6 6 6 6
20:19:50	232.00 262.00	135	16.2 16.9	2.4	226 226	-2 -3	-0.90 -0.99 -0.99	10 10 10	1.33 1.33 1.31	1.32 1.32 1.32	1.32 1.34 1.34	1.34 1.34 1.34	0.25 0.25 0.25 0.25 0.25 0.25 0.25	0.97 0.95 0.93 0.93 0.93 0.93 0.92	Off Off Off Off	6 6 6 6
20:19:51	292.00	150 161	16.9	2.3 2.4	226	-5	-0.99 -1.26 -1.35	10 10 10	1.33 1.33 1.33	1.32 1.32 1.33	1.33 1.34 1.34	1.34 1.34 1.34	0.24 0.24 0.25 0.25 0.25 0.25 0.25	0.91 0.92 0.93 0.93 0.94 0.94 0.94	Off Off Off Off	6 6 6 6
20:19:52	322.00 347.00	161	16.9 17.3	2.1	226 226	-6 -7	-1.26 -1.08 -0.90	10 10 11	1.33 1.33 1.33	1.32 1.32 1.33	1.33 1.33 1.34	1.34 1.34 1.34	0.25 0.25 0.25 0.25 0.25 0.25 0.25	0.93 0.93 0.93 0.93 0.93 0.93 0.93	Off Off Off Off	6 6 6 6
20:19:53	372.00	160 160	17.3	2.1 1.6	225	-8	-0.63 -0.54 -0.54	10 11 11	1.33 1.33 1.33	1.32 1.32 1.33	1.33 1.33 1.35	1.35 1.35 1.35	0.26 0.25 0.26 0.26 0.26 0.26 0.26	0.93 0.94 0.93 0.92 0.91 0.91 0.91	Off Off Off Off	6 6 6 6
20:19:54	397.00 422.00	159	16.2	1.9	225 224	-9	-0.63 -0.81	10 10	1.33 1.33	1.32 1.32	1.33 1.33	1.35 1.35	0.26 0.26 0.26 0.26 0.26 0.26 0.26	0.90 0.90 0.90 0.90 0.90 0.90 0.89	Key Key	6 6

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel (g)	VHF	Pitch Trim Stab Pos (degrees)
20:19:55	447.00	156 144	15.8 16.6	1.8 1.9	224	-9 -10	-0.72 -0.36 -0.18 0.00	10 10 10 9	1.33 1.33	1.32 1.32	1.33 1.33	1.34 1.34	0.26 0.26 0.26 0.25 0.25 0.25	0.89 0.89 0.87 0.87 0.86 0.85	Off Off	6 6
20:19:56	467.00 487.00	156	15.8	2.1	223	-10	0.00 0.18 0.00	9 10 10	1.33	1.32	1.33	1.34	0.25 0.25 0.25	0.83 0.83 0.84	Off	6
20:19:57	507.00	125 123	15.8 15.8	3.0 2.5	222 222	-10 -10	0.00 0.00 0.00	10 10 10	1.33 1.33	1.32 1.32	1.33 1.33	1.35 1.34	0.25 0.26 0.26 0.26 0.27	0.84 0.84 0.85 0.87 0.89	Off Off	6 6
20:19:58	522.00	154	16.2	2.1	221	-10	0.00 0.00 -0.36	11 11 11	1.33	1.32	1.33	1.35	0.27 0.27 0.28 0.28 0.28	0.89 0.89 0.90 0.92 0.92	Off	6
20:19:59	542.00 557.00	152 154	16.2 15.5	1.7 2.0	220 219	-11 -12	-0.36 -0.27 -0.18	11 11 10	1.33 1.33	1.32 1.32	1.33 1.33	1.35 1.35	0.28 0.28 0.27 0.27 0.27	0.92 0.92 0.90 0.89 0.86	Off Off	6 6
20:20:00	577.00	144	15.1	2.5	219	-12	0.00 0.00 0.00	11 10 10	1.33	1.32	1.33	1.35	0.27 0.27 0.27 0.27	0.86 0.88 0.88 0.87	Key	6
20:20:01	587.00 607.00	154 152	15.1 14.8	2.9 2.9	217 217	-11 -12	0.00 0.00 -0.18	11 11 11	1.33 1.34	1.32 1.32	1.33 1.33	1.35 1.35	0.27 0.27 0.27 0.27	0.88 0.88 0.89 0.89	Off Off	6 6
20:20:02	622.00	154	14.8	2.9	216	-12	-0.54 -0.54	11 11	1.34	1.32	1.34	1.35	0.28 0.28 0.28 0.28	0.89 0.89 0.90 0.91	Off	6
20:20:03	637.00 652.00	155 154	14.8 14.8	2.8 2.5	215 214	-12 -12	-0.72 -0.72	11 11	1.34 1.34	1.32 1.32	1.33 1.33	1.35 1.35	0.28 0.29 0.29 0.28	0.93 0.93 0.93 0.93	Off Off	6 6
20:20:04	667.00	152	14.8	2.7	213	-13	-0.72 -0.54 -0.45 -0.45	12 11 11 11	1.34	1.32	1.34	1.35	0.28 0.29 0.29 0.29 0.28	0.94 0.95 0.94 0.95 0.94	Off	6
20:20:05	682.00 697.00	120 154	14.4 14.4	3.0 2.9	212 211	-13 -12	-0.36 -0.36 -0.18 -0.18	11 11 11 11	1.34 1.34	1.32 1.32	1.33 1.34	1.35 1.35	0.28 0.28 0.28 0.27	0.91 0.91 0.90 0.89	Key Key	6 6
20:20:06	707.00	154	14.0	2.6	210	-12	-0.36 -0.54	11 11	1.34	1.32	1.33	1.35	0.28 0.28 0.28 0.28	0.89 0.91 0.92 0.92	Off	6
20:20:07	722.00 737.00	122 153	14.0 13.7	2.6 2.6	209 208	-13 -12	-0.90 -0.63 -0.36 0.00	11 11 11 11	1.34 1.34	1.32 1.32	1.33 1.33	1.35 1.35	0.28 0.28 0.28 0.28	0.92 0.91 0.90 0.90	Off Off	6 6
20:20:08	747.00	154	13.3	2.5	207	-11	0.18 0.54	11 12	1.34	1.32	1.34	1.35	0.28 0.28 0.28 0.28	0.90 0.90 0.90 0.91	Off	6
20:20:09	757.00 767.00	120 138	13.3 13.0	2.4 2.4	206 206	-10 -9	0.63 0.72 0.72 0.72	11 11 11 11	1.34 1.34	1.32 1.32	1.33 1.34	1.35 1.35	0.27 0.28 0.28 0.27	0.91 0.92 0.91 0.91	Key Off	6 6
20:20:10	737.00	125	13.0	2.6	207	-8	0.54 0.27	11 11	1.34	1.32	1.34	1.35	0.27 0.27 0.27	0.90 0.88 0.87	Off	6
20:20:11	787.00 797.00	128 124	12.6 12.6	2.5 2.4	204 203	-7 -7	0.00 -0.09 -0.09 -0.09	11 11 11 11	1.34 1.34	1.32 1.32	1.34 1.33	1.35 1.34	0.27 0.27 0.28 0.28 0.28	0.91 0.90 0.92 0.94 0.94	Off	6 6
20:20:12	807.00	156	12.6	2.5	203	-6	-0.09 -0.18	11 11	1.34	1.32	1.33	1.35	0.28 0.28 0.27	0.92 0.91 0.91	Off Off	6
20:20:13	812.00 822.00	128	12.6 12.2	2.3 2.1	202 202	-5 -4	-0.09 0.00 0.00 0.00	12 11 11 11	1.34 1.33	1.32 1.32	1.33 1.33	1.35	0.27 0.27 0.27 0.28	0.93 0.93 0.93 0.93	Off	6 6
20:20:14	832.00	130 159	12.2	2.1	202	-3	0.00 0.00	11 11	1.33	1.31	1.33	1.35 1.35	0.27 0.27 0.27	0.92 0.92 0.93	Key Key	6
20:20:15	797.00 852.00	160	12.2 12.2	1.9 1.7	203 201	-2 -1	0.00 0.00 0.00 0.00	11 11 11 11	1.33 1.34	1.31 1.31	1.33	1.34	0.27 0.26 0.27 0.27	0.93 0.93 0.92 0.93	Key	6 6
20:20:16	862.00	160 132	12.2	2.1	201	0	0.18 0.18	11 11	1.33	1.31	1.33 1.33	1.35 1.35	0.27 0.27 0.27 0.27	0.93 0.94 0.93 0.93	Key Key	6
20:20:17	872.00 882.00	161	11.9 11.9	2.2 1.9	201 202	0 0	0.09 0.00 0.00 -0.09	10 10 10 10	1.34	1.31	1.33	1.35	0.26 0.26 0.26 0.26	0.93 0.93 0.93 0.92	Key	6 6
20:20:18	892.00	162 162	11.9	1.6	202	0	-0.18 -0.27	11 10	1.34 1.34	1.31 1.31	1.33 1.33	1.35 1.35	0.26 0.26 0.26 0.26	0.91 0.90 0.92 0.95	Key Key	6
20:20:19	902.00 867.00	162	11.9 11.9	1.2 0.6	202 204	1 1	0.00 0.09	10 10	1.34	1.32	1.33	1.35	0.26 0.26 0.26	0.94 0.94 0.93	Off	6 6

LOCAL TIME (ref. CVR)	IAS Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel. (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
20:20:20	922.00	162 163	11.5	0.4	202	2	0.36 0.36 0.36 0.18	10 10 10 10	1.34 1.34 1.31 1.33	1.31 1.32 1.33 1.35	1.33 1.33 1.33 1.35	1.35 1.35 1.35 1.35	0.26 0.26 0.26 0.26 0.25 0.25 0.25 0.25	0.93 0.93 0.92 0.91 0.90 0.90 0.89 0.89	Off Off Off Off	6 6 6 6
20:20:21	932.00 942.00	163	11.2 10.8	0.2 0.2	203 203	1 1	0.09 0.00 0.00	10 10 10	1.34 1.34 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.35 1.35 1.35	0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89	Off Off Off Off	6 6 6 6
20:20:22	952.00	164 165	10.4	0.1	203	1	-0.09 -0.09 -0.09	9 9 9	1.34 1.34 1.31	1.32 1.31 1.33	1.33 1.33 1.33	1.35 1.35 1.35	0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	0.87 0.87 0.87 0.87 0.89 0.89 0.90 0.90	Off Off Off Off	6 6 6 6
20:20:23	957.00 967.00	166	9.7 10.1	0.2 0.1	203 204	0 -1	-0.09 -0.18 -0.18	10 10 9	1.33 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.35 1.35 1.35	0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	0.89 0.90 0.90 0.91 0.92 0.92 0.92 0.92	Off Off Off Off	6 6 6 6
20:20:24	927.00	168 167	9.4	0.2	206	-1	0.00 0.36 0.72	9 9 8	1.34 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.35 1.35 1.35	0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	0.91 0.91 0.90 0.90 0.92 0.92 0.92 0.90	Off Off Off Off	6 6 6 6
20:20:25	982.00 987.00	168	9.4 9.4	0.2 0.2	204 204	-1 0	1.17 1.35 1.08	9 9 8	1.33 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.35 1.35 1.35	0.24 0.25 0.24 0.24 0.24 0.24 0.24 0.24	0.90 0.89 0.88 0.88 0.88 0.89 0.89 0.88	Key Key Key Key	6 6 6 6
20:20:26	992.00	169 170	8.6	0.2	204	0	0.90 0.72 0.63	9 9 9	1.33 1.34 1.31	1.32 1.31 1.33	1.33 1.33 1.33	1.35 1.35 1.35	0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	0.89 0.89 0.88 0.88 0.88 0.89 0.89 0.88	Key Key Key Key	6 6 6 6
20:20:27	997.00 1002.0	170	8.6 8.3	0.1 0.3	204 204	0 -1	0.72 0.63 0.63	9 9 9	1.33 1.33 1.32	1.32 1.32 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	0.90 0.92 0.92 0.92 0.92 0.92 0.91 0.91	Key Key Key Key	6 6 6 6
20:20:28	1002.0	170 172	7.9	0.9	204	-1	0.54 0.45 0.45	9 9 8	1.33 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.35 1.35 1.35	0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	0.90 0.91 0.91 0.91 0.91 0.91 0.91 0.91	Key Off Off Off	6 6 6 6
20:20:29	1012.0 1012.0	172	8.3 8.3	1.0 0.7	205 204	-1 -1	0.45 0.45 0.45	8 8 8	1.33 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.35 1.35 1.35	0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	0.91 0.90 0.90 0.91 0.91 0.91 0.91 0.91	Off Off Off Off	6 6 6 6
20:20:30	1017.0	173 173	8.3	0.9	204	-1	0.45 0.54 0.72	8 8 8	1.33 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	0.92 0.91 0.92 0.92 0.92 0.92 0.92 0.92	Off Off Off Off	6 6 6 6
20:20:31	1022.0 1022.0	174	8.3 8.3	0.9 0.4	204 204	0 0	0.72 0.81 0.90	8 8 8	1.33 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	0.93 0.93 0.94 0.94 0.94 0.94 0.94 0.94	Off Off Off Off	6 6 6 6
20:20:32	1022.0	161 176	7.9	0.2	203	0	0.90 0.90 1.08	8 8 8	1.33 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	0.95 0.97 0.97 0.98 0.98 0.98 0.98 0.98	Off Off Off Off	6 6 6 6
20:20:33	1027.0 1032.0	178	7.6 7.9	0.5	203 203	1 0	0.90 0.63 0.27	8 8 8	1.33 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Off Off Off Off	6 6 6 6
20:20:34	1037.0	164 180	8.3	0.9 0.7	203	0	0.27 0.27 0.18	8 8 8	1.33 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.23 0.23 0.23 0.23 0.23 0.23 0.23 0.23	0.93 0.93 0.93 0.94 0.94 0.94 0.94 0.94	Off Off Off Off	6 6 6 6
20:20:35	1037.0 1047.0	180	8.3 8.6	0.9	203	0	0.09 0.18 0.18	8 8 8	1.33 1.33 1.30	1.30 1.30 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.24 0.23 0.23 0.23 0.23 0.23 0.23 0.23	0.96 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Off Off Off Off	6 6 6 6
20:20:36	1047.0	180 182	8.6	0.7 1.5	203	0	0.18 0.18 0.18	8 8 8	1.33 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off Off Off Off	6 6 6 6
20:20:37	1052.0 1062.0	183	9.0	0.5	203 203	0	0.18 0.00 0.00	8 8 9	1.33 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	1.01 1.04 1.04 1.04 1.04 1.04 1.04 1.04	Off Off Off Off	6 6 6 6
20:20:38	1067.0	184 155	9.0 9.4	0.0 0.1	203	0 0	0.00 0.18 0.36	8 8 8	1.33 1.33 1.30	1.31 1.30 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	1.03 1.04 1.04 1.04 1.04 1.04 1.04 1.03	Off Off Off Off	6 6 6 6
20:20:39	1077.0 1087.0	186	9.4	0.1	203	0	0.54 0.54 0.63	7 7 7	1.33 1.33 1.31	1.31 1.31 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.23 0.23 0.23 0.23 0.23 0.23 0.23 0.23	0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99	Off Off Off Off	6 6 6 6
20:20:40	1102.0	187 173	9.4 9.4	0.0 0.0	203 203	0 0	0.72 0.54 0.54	7 7 7	1.33 1.33 1.30	1.30 1.30 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.23 0.23 0.23 0.23 0.23 0.23 0.23 0.23	0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Off Off Off Off	6 6 6 6
20:20:41	1107.0	186	9.7	0.0	203	1	0.54 0.45 0.36	7 7 7	1.33 1.33 1.30	1.30 1.30 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.22 0.23 0.23 0.23 0.23 0.23 0.23 0.23	0.98 0.99 0.99 0.98 0.98 0.98 0.98 0.98	Off Off Off Off	6 6 6 6
20:20:42	1122.0 1137.0	186 188	9.7 9.0	0.0 0.0	203 204	1 1	0.27 0.18 0.00	7 7 7	1.33 1.33 1.31	1.30 1.31 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.23 0.23 0.23 0.23 0.23 0.23 0.23 0.23	0.96 0.96 0.95 0.95 0.95 0.95 0.95 0.95	Off Off Off Off	5 5 5 5
20:20:43	1147.0	177	9.4	0.0	204	0	0.00 0.18 0.36	7 7 7	1.33 1.33 1.30	1.30 1.30 1.33	1.33 1.33 1.33	1.34 1.34 1.34	0.22 0.21 0.21 0.21 0.21 0.21 0.21 0.21	0.94 0.92 0.93 0.92 0.94 0.94 0.94 0.94	Off Off Off Off	5 5 5 5
20:20:44	1162.0	188	9.4	0.0	204	1	0.54	7	1.33	1.30	1.33	1.34	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.93	Off Off Off Off	5 5 5 5

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (up/down) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
	1177.0	188	8.6	0.0	204	1	0.72 0.72	7 7 7	1.33	1.31	1.33	1.34	0.21 0.21 0.21 0.21 0.21 0.21 0.20 0.20	0.93 0.92 0.91 0.91 0.90 0.88 0.88 0.87	Off	5
20:20:45	1187.0	189	8.3	0.0	204	0	0.54 0.18	6 6 6	1.33	1.30	1.33	1.34	0.21 0.21 0.21 0.21 0.21 0.20 0.20 0.20	0.91 0.91 0.90 0.88 0.88 0.87 0.87 0.87	Off	5
20:20:46	1202.0 1207.0	189 190	8.3 7.6	0.0 0.2	204 204	0 0	0.18 0.45 0.72 0.63	6 7 6 7	1.33 1.33	1.31 1.31	1.33 1.33	1.34 1.34	0.20 0.20 0.20 0.20 0.20 0.20 0.20 0.20	0.89 0.88 0.88 0.87 0.87 0.87 0.87 0.87	Off Off	5 5
20:20:47	1217.0	177	7.6	0.4	204	0	0.54 0.36	6 7	1.33	1.30	1.33	1.34	0.20 0.20 0.20 0.20 0.20 0.20 0.20 0.20	0.89 0.89 0.89 0.88 0.88 0.87 0.87 0.87	Off	5
20:20:48	1232.0 1237.0	162 194	7.2 7.2	0.7 1.2	204 204	0 0	0.45 0.36 0.18 0.00	6 6 6 7	1.33 1.33	1.31 1.30	1.33 1.33	1.34 1.34	0.20 0.20 0.20 0.20 0.20 0.20 0.20 0.20	0.87 0.89 0.90 0.92 0.92 0.94 0.96 0.96	Key Key	5 5
20:20:49	1242.0	194	7.6	1.2	204	-1	-0.18 -0.18	7 7	1.33	1.30	1.33	1.34	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	0.97 0.97 0.98 0.98 0.98 0.98 0.98 0.98	Key	5
20:20:50	1252.0 1262.0	195 196	7.9 7.6	1.2 1.1	204 203	-3 -4	-0.36 -0.45 -0.45 -0.36	7 7 7 6	1.33 1.33	1.30 1.30	1.32 1.33	1.34 1.34	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98	Key Key	5 5
20:20:51	1272.0	196	8.3	1.1	203	-5	-0.36 -0.36	6 6	1.33	1.30	1.33	1.34	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	0.98 0.98 0.98 0.97 0.97 0.97 0.97 0.98	Off	5
20:20:52	1282.0 1292.0	183 166	8.3 8.3	1.1 1.3	203 202	-7 -8	-0.36 -0.36 -0.18 -0.09	6 7 6 6	1.33 1.33	1.30 1.30	1.32 1.33	1.34 1.34	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	0.98 0.98 0.97 0.97 0.97 0.97 0.98 0.98	Off Off	5 5
20:20:53	1307.0	189	8.3	1.1	202	-10	0.00 0.00	6 6	1.33	1.30	1.33	1.34	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	0.98 0.98 0.98 0.99 0.99 0.99 0.99 0.99	Off	5
20:20:54	1317.0 1332.0	190 190	8.6 8.6	0.9 0.8	201 201	-11 -12	0.00 0.00 0.00 0.00	6 6 6 6	1.33 1.33	1.30 1.30	1.33 1.32	1.34 1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	0.98 0.98 0.97 0.97 0.97 0.97 0.97 0.96	Off	5 5
20:20:55	1342.0	198	8.6	0.7	200	-13	0.00 0.09	6 6	1.33	1.30	1.33	1.34	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	0.97 0.97 0.96 0.96 0.94 0.94 0.94 0.94	Off Off	5
20:20:56	1352.0 1367.0	194	8.6 8.6	0.9 1.0	199 198	-15 -16	0.00 0.09 0.18	6 7 7	1.33 1.33	1.30 1.30	1.33 1.32	1.34	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	0.94 0.94 0.93 0.92 0.92 0.91 0.91 0.91	Off	5 5
20:20:57	1372.0	198 200	8.3	1.1	197	-17	0.36 0.45	7 7	1.33	1.30	1.32	1.34 1.34	0.21 0.21 0.22 0.22 0.22 0.22 0.22 0.22	0.91 0.92 0.93 0.94 0.96 0.96 0.95 0.95	Off Off	5
20:20:58	1322.0 1387.0	200	8.3 8.3	1.0 0.7	196 195	-18 -19	0.36 0.36	6 6	1.33 1.33	1.30 1.30	1.32	1.34	0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22	0.95 0.95 0.95 0.94 0.94 0.94 0.94 0.94	Off	5 5
20:20:59	1397.0	202 196	7.9	0.9	194	-19	0.36 0.45	6 6	1.33	1.30	1.32 1.32	1.34 1.33	0.21 0.21 0.22 0.22 0.21 0.21 0.21 0.21	0.93 0.92 0.92 0.92 0.94 0.93 0.93 0.93	Off Off	5
20:21:00	1407.0 1417.0	204	7.6 7.2	1.2 1.4	193 192	-20 -21	0.54 0.72 0.90 0.90	6 6 6 6	1.33	1.30	1.32	1.34	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	0.92 0.91 0.91 0.94 0.95 0.95 0.95 0.95	Off	5 5
20:21:01	1422.0	204 205	7.2	1.9	191	-21	0.99 46.80	6 7	1.33 1.33	1.30 1.30	1.32 1.32	1.34 1.34	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95	Off Off	5
20:21:02	1427.0 1372.0	206	7.2 7.2	1.8 1.7	189 189	-21 -21	0.90 0.90 0.72 0.72	6 6 6 6	1.33	1.30	1.32	1.34	0.21 0.21 0.22 0.22 0.22 0.22 0.22 0.22	0.97 0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off	5 5
20:21:03	1437.0	208 208	7.6	1.9	187	-22	0.72 0.72	6 6 6	1.33 1.33	1.29 1.30	1.32 1.32	1.34 1.34	0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22	0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.99	Off Off	5
20:21:04	1442.0 1447.0	209	7.6 7.6	2.0 1.7	185 184	-22 -22	0.72 0.63 0.72	7 6 6	1.33	1.29	1.32	1.32	0.22 0.22 0.22 0.23 0.22 0.22 0.22 0.22	1.01 1.02 1.03 1.03 1.02 1.02 1.02 1.02	Off	5 5
20:21:05	1452.0	209 210	7.6	1.5	183	-23	0.72 0.72	6 7	1.33 1.33	1.30 1.30	1.32 1.32	1.34 1.34	0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22	1.02 1.02 1.02 1.01 1.01 1.01 1.01 1.01	Off Off	5
20:21:06	1457.0 1462.0	211	7.2 7.2	1.5 1.5	181 180	-23 -23	0.72 0.63 0.54	7 7 7	1.33	1.29	1.32	1.34	0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22	1.02 1.04 1.04 1.04 1.03 1.03 1.02 1.02	Off	5 5
20:21:07	1407.0	211 212	7.2	1.7	179	-24	0.54 0.45 0.54	7 6 6	1.33	1.29	1.32	1.34	0.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22	1.03 1.04 1.04 1.03 1.03 1.03 1.03 1.03	Off	5
20:21:08	1472.0 1477.0	212	7.2 7.2	1.4 1.6	177 176	-24 -25	0.36 0.36 0.36	6 6 6	1.33	1.29	1.32	1.34	0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.01 1.00 1.00 1.00 1.01 1.01 1.01 1.01	Off	5 5

TWA Flt. 800, B747-131, Takeoff to End of Data
 Tabular Data No. 1, Created: January 09, 1997, National Transportation Safety Board

18

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel (g)	VHF	Pitch Trim Stab Pos (degrees)
20:21:09	1482.0	214	6.8	1.5	174	-26	0.36 0.36 45.90	6 6 6	1.33 1.32 1.30	1.30 1.30 1.32	1.32 1.33 1.33	1.33 1.33 1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.01 1.02 1.02 1.02 1.02 1.01 1.02	Off Off Off	5
20:21:10	1492.0 1497.0	214	7.2 6.8	1.3 1.4	173 171	-26 -26	0.54 0.54 0.45	6 6 7	1.32	1.29	1.32	1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.01 1.01 1.02 1.02 1.01 1.02 1.01	Off Off Off	5
20:21:11	1497.0	216 216	6.5	1.3	170	-27	0.54 0.45 0.54	6 6 6	1.32 1.32 1.29	1.29 1.32 1.32	1.33 1.33 1.33	1.33 1.33 1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.01 1.03 1.03 1.03 1.04 1.03 1.02	Off Off Off	5 5
20:21:12	1442.0 1512.0	218	6.5 6.5	1.4 1.4	167 167	-27 -27	0.54 0.54 0.72	6 6 6	1.32	1.29	1.32	1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.02 1.02 1.03 1.02 1.02 1.03 1.03	Off Off Off	5
20:21:13	1517.0	218 219	6.1	1.2	165	-27	0.72 0.72 0.72	6 6 6	1.32 1.32 1.29	1.29 1.32 1.32	1.33 1.33 1.33	1.33 1.33 1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.03 1.03 1.03 1.02 1.02 1.01 1.01	Off Off Off	5 5
20:21:14	1517.0 1522.0	220	6.1 5.8	1.5 1.4	164 162	-27 -27	0.90 0.90 0.90	6 6 6	1.32	1.29	1.32	1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.01 1.02 1.03 1.03 1.03 1.03 1.03	Off Off Off	5
20:21:15	1527.0	221 222	5.8	1.4	161	-26	0.81 0.81 0.72	6 7 6	1.32 1.32 1.29	1.29 1.32 1.32	1.33 1.33 1.33	1.33 1.33 1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.03 1.04 1.04 1.05 1.04 1.04 1.02	Off Off Off	5 5
20:21:16	1532.0 1477.0	222	5.8 6.1	1.3	159 157	-25 -26	0.54 0.63 0.81	6 6 6	1.32	1.29	1.32	1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.02 1.03 1.03 1.03 1.03 1.03 1.03	Off Off Off	5
20:21:17	1537.0	222 223	5.8	1.2 1.1	157	-24	0.90 1.35 1.80	6 6 6	1.32 1.32 1.29	1.29 1.32 1.31	1.33 1.33 1.33	1.33 1.33 1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.00 0.99 1.00 1.00 1.00 1.00 1.02	Off Off Off	5 5
20:21:18	1537.0 1537.0	224	5.8 5.8	1.1	156 154	-22 -20	2.16 2.16 2.07	6 6 6	1.32	1.29	1.31	1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.02 1.02 1.02 1.03 1.04 1.03 1.04	Off Off Off	5
20:21:19	1542.0	226 226	5.8	0.9 0.7	154	-18	2.07 1.89 1.89	6 6 6	1.32 1.32 1.29	1.29 1.31 1.31	1.33 1.33 1.33	1.33 1.33 1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.03 1.01 1.01 1.01 1.01 1.01 1.01	Off Off Off	5 5
20:21:20	1547.0 1547.0	228	5.8	0.8	153 152	-15	2.07 2.16 2.07	7 6 6	1.32	1.29	1.31	1.33	0.20 0.20 0.20 0.20 0.20 0.20 0.20	0.99 0.99 1.00 1.02 1.03 1.03 1.03	Off Off Off	5
20:21:21	1552.0	228 230	6.1 6.5	0.8 0.7	150	-12 -10	2.07 2.07 2.07	6 6 6	1.32 1.31 1.28	1.29 1.28 1.31	1.33 1.33 1.33	1.33 1.33 1.33	0.20 0.21 0.21 0.21 0.21 0.21 0.21	1.02 1.02 1.03 1.04 1.04 1.04 1.07	Off Off Off	5 5
20:21:22	1557.0 1557.0	230	6.8	0.9	151	-8	1.89 1.80 1.53	6 6 6	1.31	1.28	1.31	1.33	0.20 0.20 0.20 0.20 0.20 0.20 0.20	1.03 1.04 1.03 1.03 1.04 1.05 1.06	Off Off Off	5
20:21:23	1567.0	230 231	7.2 7.6	0.9 1.0	300 151	-6 -4	1.44 1.44 1.35	6 6 6	1.31 1.32 1.28	1.28 1.31 1.33	1.33 1.33 1.33	1.33 1.33 1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.06 1.07 1.08 1.07 1.07 1.07 1.07	Off Off Off	5 5
20:21:24	1577.0	232	7.9	1.2	151	-2	1.35 1.17 1.17	6 6 6	1.32	1.28	1.31	1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.07 1.06 1.06 1.06 1.06 1.06 1.07	Off Off Off	5
20:21:25	1582.0 1597.0	233 233	8.3 8.3	0.9 0.5	151 151	0 1	1.08 0.81 0.36	6 7 6	1.32 1.32 1.28	1.28 1.31 1.33	1.33 1.33 1.33	1.33 1.33 1.33	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.09 1.10 1.09 1.07 1.07 1.07 1.07	Off Off Off	5 5
20:21:26	1612.0	210	8.6	0.2	151	2	0.00 0.00 0.00	6 6 6	1.32	1.28	1.31	1.32	0.21 0.21 0.21 0.21 0.21 0.21 0.21	1.06 1.05 1.04 1.03 1.03 1.03 1.03	Off Off Off	5
20:21:27	1627.0 1647.0	233 233	8.6 8.6	0.2 0.0	151 151	2 2	0.00 0.00 0.00	6 6 6	1.32 1.32 1.28	1.28 1.31 1.33	1.33 1.33 1.33	1.33 1.33 1.33	0.20 0.20 0.20 0.20 0.20 0.20 0.20	1.01 1.00 1.00 0.99 0.99 0.98 0.98	Off Off Off	5 5
20:21:28	1662.0	234	9.0	0.0	151	2	0.00 0.00	6 6	1.31	1.28	1.31	1.33	0.19 0.19 0.19 0.19 0.19 0.19 0.19	0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off Off Off	5
20:21:29	1682.0 1697.0	234 233	9.0 18.0	0.0 0.0	151 151	2 1	0.00 0.00 -0.27 -0.63	6 6 6 6	1.31 1.32 1.28 1.31	1.28 1.31 1.33 1.33	1.33 1.33 1.33 1.33	1.33 1.33 1.33 1.33	0.19 0.19 0.19 0.19 0.19 0.19 0.19	0.98 0.98 0.98 0.97 0.96 0.95 0.95	Off Off Off	5 5
20:21:30	1717.0	233	8.6	0.0	151	0	-0.90 -0.99	6 6	1.32	1.29	1.31	1.33	0.19 0.19 0.19 0.19 0.19 0.19 0.19	0.95 0.96 0.97 0.97 0.97 0.97 0.97	Off Off Off	5
20:21:31	1737.0 1757.0	214 234	9.0 9.4	0.0 0.1	151 151	-1 -2	-0.90 -0.81 -0.72 -0.72	6 6 6 6	1.32 1.32 1.29 1.31	1.28 1.31 1.33 1.33	1.33 1.33 1.33 1.33	1.33 1.33 1.33 1.33	0.19 0.19 0.19 0.19 0.19 0.19 0.19	0.96 0.96 0.97 0.96 0.96 0.98 0.97	Off Off Off	5 5
20:21:32	1782.0	234	9.4	0.0	150	-3	-0.45 -0.45	6 6	1.32	1.28	1.31	1.33	0.19 0.19 0.19 0.19 0.19 0.19 0.19	0.97 0.97 0.97 0.97 0.97 0.97 0.97	Off Off Off	5
20:21:33	1797.0 1822.0	234 234	9.4 9.4	0.0 0.0	150 150	-3 -4	-0.27 -0.18 -0.18 -0.18	6 6 6 6	1.32 1.32 1.29 1.31	1.28 1.29 1.31 1.33	1.33 1.33 1.33 1.33	1.33 1.33 1.33 1.33	0.19 0.19 0.19 0.19 0.19 0.19 0.19	0.98 0.98 0.97 0.97 0.97 0.96 0.96	Off Off Off	5 5

18

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
20:21:34	1842.0	234	9.4	0.0	150	-4	-0.09 -0.09	6 6	1.32	1.29	1.31	1.33	0.19 0.19 0.19 0.19 0.19	0.94 0.94 0.95 0.94 0.94	Off	5
20:21:35	1867.0 1887.0	234 211	8.6 9.0	0.2 0.0	150 150	-4 -4	0.00 0.00 0.36	5 5 5	1.32 1.32	1.29 1.29	1.31 1.31	1.33 1.33	0.19 0.19 0.18 0.19 0.19	0.94 0.94 0.92 0.94 0.91	Off Off	4 4
20:21:36	1907.0	234	8.6	0.1	150	-4	0.54 0.54	5 5	1.32	1.29	1.31	1.33	0.19 0.18 0.18 0.18 0.18	0.91 0.90 0.89 0.89 0.89	Off	4
20:21:37	1927.0 1947.0	234 236	8.6 8.3	0.1 0.3	150 150	-3 -2	0.90 1.08	5 5	1.32 1.32	1.29 1.29	1.31 1.31	1.33 1.33	0.19 0.18 0.18 0.19 0.18	0.90 0.90 0.89 0.90 0.89	Off	4 4
20:21:38	1967.0	236	7.9	0.5	150	-1	1.08 1.08 0.90 0.90	5 5 5 5	1.32	1.51	1.31	1.33	0.18 0.18 0.18 0.18 0.18	0.88 0.88 0.88 0.88 0.88	Off Off	4
20:21:39	1987.0 2002.0	236	7.9	0.4	150 150	0 0	0.81 0.90 0.90 0.90	5 6 6 6	1.32 1.32	1.29 1.29	1.31 1.31	1.33 1.33	0.19 0.18 0.18 0.18 0.18	0.90 0.90 0.89 0.89 0.89	Off	4 4
20:21:40	2022.0	236 215	7.6	0.5	150	1	1.08 1.08	5 5	1.31	1.28	1.31	1.33 1.33	0.18 0.18 0.18 0.18 0.18	0.89 0.89 0.89 0.88 0.88	Off Off	4
20:21:41	2032.0 2047.0	237	7.6 7.9	0.7 0.8	150 150	1 1	0.99 0.90 0.72 0.54	5 5 5 5	1.31 1.31	1.28 1.51	1.31	1.32	0.18 0.18 0.18 0.18 0.18	0.90 0.91 0.92 0.92 0.91	Off	4 4
20:21:42	2062.0	236 236	8.3	0.7	150	1	0.45 0.45	6 6	1.31	1.28	1.31 1.31	1.32 1.32	0.18 0.18 0.19 0.19	0.92 0.93 0.93 0.96	Off Off	5
20:21:43	2077.0 2092.0	237	8.3 8.6	0.5 0.2	150 149	1 1	0.45 0.45 0.45 0.45	6 6 6 6	1.31	1.28	1.31	1.33	0.19 0.20 0.20 0.20 0.20	0.98 0.99 1.01 1.02 1.00	Off	5 5
20:21:44	2107.0	237 238	8.3	0.4	150	1	0.36 0.36	6 6	1.32 1.32	1.29 1.29	1.31 1.31	1.33 1.33	0.20 0.20 0.20 0.20	0.98 0.98 0.99 0.98	Off Off	4
20:21:45	2122.0 2102.0	238	8.3 7.9	0.2 0.5	149 147	1 0	0.27 0.27 0.18 0.18	6 6 6 6	1.32	1.28	1.31	1.33	0.19 0.20 0.20 0.19 0.19	0.97 0.97 0.95 0.94 0.94	Off	4 4
20:21:46	2157.0	238 238	7.9	0.4	149	0	0.18 0.00	5 5	1.32 1.32	1.29 1.28	1.31 1.31	1.33 1.33	0.19 0.19 0.19 0.19 0.19	0.93 0.92 0.92 0.91 0.91	Off	4
20:21:47	2172.0 2192.0	240	7.9 7.6	0.4 0.2	149 149	0 -1	0.09 0.18 0.18	5 5 5	1.31	1.28	1.31	1.32	0.19 0.19 0.19 0.19 0.19	0.92 0.92 0.92 0.92 0.91	Off	4 4
20:21:48	2207.0	240 240	7.6	0.2	149	-1	0.18 0.18 0.27	5 5 5	1.32 1.31	1.28 1.28	1.31 1.31	1.33 1.33	0.19 0.19 0.19 0.19 0.19	0.92 0.91 0.91 5.19 0.90	Off Off	4
20:21:49	2222.0 2242.0	240	7.2 7.2	0.0 0.2	149 149	-1 -1	0.27 0.27 0.36	5 5 5	1.32	1.28	1.31	1.33	0.18 0.18 0.18 0.19	0.89 0.89 0.88 0.89	Off	4 4
20:21:50	2222.0	242 241	6.8	0.2	147	-1	0.36 0.45 0.54	5 5 5	1.32 1.31	1.28 1.28	1.31 1.31	1.33 1.33	0.19 0.19 0.19 0.19	0.90 0.89 0.89 0.89	Off Off	4
20:21:51	2267.0 2282.0	242	6.5 6.5	0.2 0.1	149 149	-1 -1	0.54 0.54	5 5	1.31	1.28	1.31	1.33	0.19 0.19 0.19 0.19	0.91 0.91 0.91 0.91	Off	4 4
20:21:52	2292.0	244 244	6.5	0.1	149	-1	0.54 0.54 0.45	5 5 5	1.31 1.32	1.28 1.28	1.31 1.31	1.32 1.33	0.19 0.19 0.19 0.19 0.19	0.91 0.91 0.91 0.92 0.92	Off Off	4
20:21:53	2302.0 2312.0	245	6.5 6.5	0.0 0.2	149 149	-2 -2	0.45 0.45 0.45	5 5 5	1.32	1.28	1.31	1.33	0.19 0.19 0.19 0.19 0.19	0.94 0.95 0.96 0.94 0.94	Off	4
20:21:54	2327.0	245 246	6.5	0.4	149	-1	0.45 0.45 0.45	5 5 5	1.32 1.31	1.28 1.28	1.31 1.31	1.33 1.33	0.20 0.20 0.19 0.20 0.20	0.96 0.96 0.97 0.97 0.97	Off Off	4 4
20:21:55	2317.0 2352.0	246	6.8 6.8	0.2 0.4	146 149	-1 0	0.45 0.54 0.45	5 5 5	1.29	1.28	1.30	1.32	0.19 0.19 0.19 0.19	0.97 0.97 0.96 0.97	Off	4
20:21:56	2362.0	247 247	7.2	0.4	149	-1	0.54 0.54 0.54	5 5 5	1.29 1.28	1.27 1.26	1.29 1.29	1.31 1.31	0.19 0.19 0.19 0.19	0.98 0.99 0.99 0.98	Off Off	4 4
20:21:57	2377.0 2392.0	247	7.2 7.6	0.5 0.4	148 148	-1 -1	0.54 0.54 0.54	5 5 5	1.27	1.26	1.28	1.30	0.19 0.19 0.19 0.19	0.98 0.99 1.00 1.00	Off	4
20:21:58	2412.0	248 248	7.6	0.4	148	-1	0.54 0.54 0.54	5 5 5	1.27 1.26	1.26 1.26	1.28 1.28	1.30 1.30	0.19 0.19 0.19 0.19	1.00 1.00 1.00 1.00	Off Off	4 4

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel. (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
20:21:59	2427.0 2422.0	248	7.6 7.6	0.2	148 146	-1 -1	0.54 0.63 0.63	6 5 5	1.26	1.25	1.27	1.30	0.19 0.19 0.19 0.19 0.19	1.00 0.99 0.98 0.98 0.99	Off	4
20:22:00	2457.0 248	248 248	7.9	0.3 0.0	148	-1	0.54 0.54 0.54	5 5 5	1.26 1.25	1.25 1.25	1.27 1.27	1.29 1.29	0.19 0.19 0.19	1.00 1.00 0.99	Off Off	4 4
20:22:01	2477.0 2492.0	248	7.9 7.9	0.0	148 148	-1 -1	0.54 0.54 0.54	5 5 5	1.25	1.25	1.27	1.29	0.18 0.18 0.18 0.18 0.18	0.98 0.99 0.98 0.98 0.98	Off	4
20:22:02	2512.0	248	7.9	0.1	148	-1	0.54	5	1.25	1.25	1.26	1.28	0.18 0.18 0.18	0.98 0.98 0.98	Off	4
20:22:03	2532.0 2557.0	249	7.6	0.0	148 148	0	0.54 0.54 0.54	5 5 5	1.25	1.25	1.26	1.28	0.18 0.18 0.18 0.18 0.18	0.96 0.96 0.96 0.94 0.93	Off	4
20:22:04	2572.0	249 250	7.2 7.6	0.2 0.0	145	-1 -1	0.54 0.54 0.54	4 4 5	1.25 1.25	1.25 1.25	1.26 1.26	1.27 1.27	0.17 0.17 0.17 0.17	0.92 0.92 0.92 0.92	Off Off	4 4
20:22:05	2592.0 2612.0	250	7.6	0.3	147	-1	0.54 0.54 0.54	5 5 5	1.25	1.24	1.26	1.26	0.17 0.17 0.17 0.18	0.93 0.93 0.95 0.96	Off	4
20:22:06	2627.0	250 250	7.6 7.9	0.4 0.4	147 147	-1 -2	0.54 0.54 0.54	5 5 5	1.25 1.25	1.24 1.24	1.26 1.26	1.26 1.26	0.17 0.18 0.18 0.18 0.18	0.96 0.97 0.97 0.98 0.98	Off Off	4 4
20:22:07	2652.0	250	7.9	0.4	147	-3	0.54 0.54 0.54	5 5 5	1.25	1.24	1.26	1.25	0.18 0.18 0.18	0.98 0.98 0.98	Key	4
20:22:08	2672.0 2697.0	246 250	7.9 7.9	0.5 0.3	147 147	-4 -5	0.54 0.54 0.63	5 5 5	1.25 1.25	1.24 1.24	1.26 1.26	1.25 1.25	0.18 0.18 0.17 0.17 0.17	0.98 0.98 0.97 0.97 0.96	Key Key	4 4
20:22:09	2717.0	227	8.3	0.2	147	-6	0.72 0.72 0.72	5 4 4	1.25	1.24	1.26	1.25	0.17 0.17 0.17	0.96 0.97 0.97	Key	4
20:22:10	2737.0 2757.0	250 250	8.3 8.3	0.4 0.3	146 146	-7 -8	0.72 0.72 0.72	5 4 4	1.25 1.25	1.24 1.24	1.26 1.26	1.25 1.25	0.17 1.43 0.17 0.17 0.17	0.96 0.97 0.96 0.95 0.94	Key Key	4 4
20:22:11	2782.0	250	8.3	0.4	145	-9	0.72 0.72	4 4	1.25	1.24	1.26	1.25	0.17 0.17 0.17	0.93 0.95 0.96	Off	4
20:22:12	2802.0 2822.0	250 250	8.3 8.3	0.4 0.4	145 144	-10 -10	0.72 0.72 0.72	4 5 4	1.25 1.25	1.24 1.24	1.26 1.26	1.25 1.25	0.17 0.18 0.17 0.18	0.97 0.97 0.97 0.97	Off Off	4 4
20:22:13	2842.0	250	7.9	0.1	144	-11	0.72 0.72	5 5	1.25	1.24	1.26	1.25	0.17 0.17 0.18	0.97 0.97 0.96	Off	4
20:22:14	2862.0 2887.0	228 250	8.3 7.9	0.2 0.1	143 143	-12 -13	0.72 0.72 0.63	5 4 4	1.25 1.25	1.24 1.25	1.26 1.26	1.25 1.25	0.17 0.17 0.17	0.96 0.95 0.94	Off Off	4 4
20:22:15	2907.0	250	7.9	0.1	142	-14	0.54 0.54	4 4	1.25	1.25	1.26	1.25	0.17 0.17 0.17	0.93 0.93 0.94	Off	4
20:22:16	2927.0 2947.0	250 250	7.6 7.6	0.1 0.0	141 141	-14 -15	0.54 0.54 0.54	4 4 4	1.25 1.25	1.25 1.25	1.26 1.26	1.25 1.25	0.17 0.17 0.17	0.93 0.93 0.93	Off Off	4 4
20:22:17	2967.0	247	7.6	0.1	140	-15	0.63 0.63 0.63	4 4 4	1.25	1.25	1.26	1.25	0.17 0.17 0.17	0.93 0.94 0.93	Off	4
20:22:18	2987.0 3007.0	250 230	7.2 7.2	0.4 0.2	139 139	-15 -17	0.63 0.63 0.63	5 4 4	1.25 1.25	1.25 1.25	1.25 1.25	1.25 1.25	0.17 0.17 0.17	0.94 0.94 0.94	Off Off	4 4
20:22:19	3027.0	250	7.2	0.0	138	-17	0.54 0.54	4 4	1.25	1.25	1.25	1.25	0.17 0.17 0.17	0.95 0.95 0.96	Off	4
20:22:20	3042.0 3057.0	251 251	7.2 6.8	0.1 0.3	137 136	-18 -18	0.54 0.63 0.54 0.54	4 4 4 4	1.25 1.25	1.25 1.25	1.25 1.25	1.25 1.25	0.17 0.17 0.17 0.17	0.95 0.95 0.94 0.94	Off	4 4
20:22:21	3077.0	252	6.8	0.1	135	-18	0.54 0.63	4 4	1.25	1.25	1.25	1.25	0.17 0.17 0.17	0.95 0.95 0.95	Off Off	4
20:22:22	3092.0 3107.0	250	6.5 6.1	0.3 0.5	134 134	-19 -18	0.63 0.63 0.63 0.63	4 4 4 5	1.25 1.25	1.25 1.25	1.25 1.25	1.25 1.25	0.17 0.17 0.17 0.17	0.95 0.96 0.96 0.96	Off	4 4
20:22:23	3122.0	250 232	6.5	0.6	132	-19	0.63 0.63	4 4	1.25	1.25	1.25	1.25	0.17 0.17 0.17	0.97 0.98 0.98	Off Off	4

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel (g)	VHF	Pitch Trim Pos (degrees)
20:22:24	3132.0 3147.0	253	6.5 6.5	0.5 0.4	131 130	-20 -20	0.54 0.54 0.54 0.54	4 4 4 5	1.25 1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17 0.17 0.17	0.98 0.98 0.99 1.00 1.00 1.01	Off	4 4
20:22:25	3157.0 254	254	6.5	0.4	130	-21	0.54 0.54	5 4	1.25	1.25	1.25	1.25	0.17 0.18 0.18 0.18	1.01 1.01 1.01 1.01	Off Off	4
20:22:26	3172.0 3187.0	254	6.5 6.5	0.3 0.4	129 128	-21 -21	0.54 0.54 0.54 0.54	4 4 4 5	1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17 0.17 0.17	0.99 1.00 0.99 0.99 0.99 0.99	Off	4 4
20:22:27	3197.0 254 255	254	6.5	0.3	127	-22	0.54 0.54	4 5	1.25 1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17	0.99 0.99 1.00 1.01	Off Off	4
20:22:28	3212.0 3227.0	237	6.5 6.5	0.4 0.5	126 125	-23 -23	0.54 0.54 0.54 0.54	4 4 4 4	1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17 0.17 0.18	1.01 1.01 1.02 1.02 1.02 1.03	Off	4 4
20:22:29	3242.0 256 256	256	6.5	0.4	123	-23	0.54 0.63	5 4 4	1.25 1.25	1.25	1.25	1.25	0.17 0.18 0.18 0.18 0.18	1.04 1.04 1.04 1.04 1.04	Off Off	4
20:22:30	3257.0 3267.0	256	6.5 6.5	0.4 0.1	122 121	-23 -24	0.63 0.54 0.63	4 4 4	1.25	1.25	1.25	1.24	0.17 0.18 0.17 0.17 0.17	1.04 1.04 1.03 1.04 1.04	Off	4 4
20:22:31	3282.0 256 256	256	6.5	0.4	120	-24	0.63 0.63 0.63	4 4 4	1.25 1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17 0.18	1.03 1.04 1.04 1.04 1.04	Off Off	4
20:22:32	3297.0 3312.0	257	6.5 6.5	0.4 0.4	119 118	-24 -24	0.54 0.54 0.54	4 5 4	1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17	1.04 1.04 1.03 1.03	Off	4 4
20:22:33	3327.0 258 258	258	6.5	0.2	117	-24	0.54 0.54 0.54	4 4 4	1.25 1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17 0.17	1.03 1.04 1.03 1.03 1.04	Off Off	4
20:22:34	3342.0 3357.0	258	6.5 6.5	0.3 0.4	116 114	-24 -25	0.54 0.54 0.54	4 4 4	1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17	1.04 1.04 1.04 1.04	Off	4 4
20:22:35	3367.0 258 258	258	6.5	0.4	113	-25	0.54 0.54 0.54	4 4 4	1.25 1.25	1.25	1.25	1.24	0.17 0.17 0.17 0.17 0.17	1.04 1.04 1.04 1.04 1.05	Off Key	5
20:22:36	3387.0 3402.0	259	6.5 6.8	0.5 0.5	112 111	-26 -26	0.54 0.54 0.54	4 4 4	1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17 0.17	1.05 1.06 1.06 1.06 1.05	Key	5
20:22:37	3412.0 259 260	259	6.8	0.5	109	-26	0.54 0.54 0.54	5 4 4	1.25 1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.18 0.18	1.06 1.08 1.08 1.09 1.09	Key Key	5 5
20:22:38	3492.0 3447.0	260	6.8 7.2	0.4 0.5	104 107	-26 -27	0.54 0.54 0.54	4 5 4	1.25	1.25	1.25	1.25	0.18 0.18 0.18 0.18 0.18	1.09 1.10 1.10 1.09 1.09	Key	5
20:22:39	3462.0 260 260	260	7.2	0.2	106	-27	0.54 0.54 0.54	5 4 4	1.25 1.25	1.25	1.25	1.25	0.18 0.18 0.18 0.18	1.10 1.10 1.10 1.10	Key Off	5 5
20:22:40	3482.0 3497.0	260	7.2 7.2	0.4 0.2	104 103	-27 -27	0.54 0.63 0.63	4 5 4	1.25	1.25	1.25	1.25	0.18 0.18 0.18 0.18 0.18	1.10 1.09 1.10 1.10 1.11	Off	5
20:22:41	3517.0 259	260	7.2	0.3	102	-27	0.63 0.63 0.54	5 4 4	1.25 1.25	1.25	1.25	1.25	0.18 0.18 0.18 0.18	1.11 1.11 1.10 1.09	Off	5 5
20:22:42	3537.0 3627.0	260	7.2 7.2	0.2	101 95	-27 -27	0.54 0.54 0.54	4 4 4	1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17 0.17	1.09 1.09 1.09 1.07 1.05	Off	5
20:22:43	3577.0 262 262	262	7.6 7.6	0.4 0.4	98	-27	0.63 0.54 0.63	4 4 4	1.25 1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17 0.17	1.06 1.07 1.08 1.07 1.07	Off Off	5 5
20:22:44	3597.0 3617.0	262	7.6 7.6	0.2	97 95	-27 -26	0.54 0.63 0.54	4 4 4	1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17 0.17	1.07 1.07 1.07 1.10 1.11	Off	5
20:22:45	3637.0 262 262	262	7.6	0.3 0.2	94	-26	0.54 0.54 0.54	4 4 4	1.25 1.25	1.25	1.25	1.25	0.17 0.18 0.17 0.17 0.17	1.11 1.10 1.11 1.11 1.09	Off Off	5 5
20:22:46	3662.0 3682.0	258	7.6	0.2	93 92	-26	0.54 0.54 0.54	4 4 4	1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17	1.08 1.08 1.08 1.10	Off	5
20:22:47	3767.0 258 260	258	7.6 7.6	0.2 0.2	86	-26 -26	0.54 0.54 0.54	4 4 4	1.25 1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17 0.17	1.09 1.09 1.07 1.07 1.07	Off Off	5 5
20:22:48	3727.0	261	7.9	0.3	90	-26	0.45	4	1.25	1.25	1.25	1.25	0.17 0.17 0.17 0.17	1.06 1.06 1.07 1.07	Off	5

LOCAL TIME (ref. CVR)	HSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
	3747.0						0.54 0.54	4 4					0.17 0.17 0.17 0.17 0.17 0.17 0.18	1.07 1.08 1.08 1.07 1.08 1.09 1.11 1.12		
20:22:49	3772.0	262 261	7.9 8.3	0.4 0.4	88 87	-26 -26	0.54 0.54 0.54	4 4 4	1.25 1.25	1.25 1.25	1.25 1.25	1.25 1.25			Off Off	5 5
20:22:50	3797.0	261	8.6	0.5	86	-26	0.54 0.54 0.54	4 4 5	1.25	1.25	1.25	1.25	0.18 0.18 0.18 0.18 0.18 0.18	1.13 1.13 1.12 1.13 1.13 1.12	Off	5
20:22:51	3822.0 3847.0	258 260	8.6 8.6	0.4 0.2	85 84	-26 -26	0.54 0.54 0.63	4 5 4	1.25 1.25	1.25 1.25	1.25 1.25	1.25 1.25	0.18 0.18 0.18 0.18 0.18 0.18	1.13 1.13 1.12 1.12 1.12 1.11	Off Off	5 5
20:22:52	3932.0	258	9.0	0.2	78	-26	0.54 0.54 0.54	4 4 4	1.25	1.25	1.25	1.25	0.18 0.18 0.18 0.18 0.18 0.18	1.11 1.11 1.11 1.11 1.11 1.12	Off	5
20:22:53	3897.0 3927.0	261 261	9.0 9.4	0.3 0.0	81 80	-26 -26	0.63 0.54 0.63	4 4 4	1.25 1.25	1.25 1.25	1.25 1.25	1.25 1.25	0.18 0.18 0.18 0.18 0.18 0.18	1.11 1.11 1.11 1.11 1.11 1.10	Off Off	5 5
20:22:54	3957.0	260	9.4	0.2	78	-26	0.63 0.63	4 4	1.25	1.25	1.25	1.25	0.18 0.18 0.17 0.17 0.17 0.17	1.10 1.11 1.11 1.09 1.07 1.06	Off	5
20:22:55	3987.0 4017.0	258 258	9.4 9.0	0.1 0.2	77 76	-26 -26	0.63 0.63	4 4	1.25 1.25	1.25 1.25	1.25 1.25	1.25 1.25	0.17 0.17 0.17 0.17	1.07 1.07 1.07 1.07	Key Key	4 4
20:22:56	4047.0	260	8.6	0.2	75	-25	0.63 0.54 0.54	4 5 4	1.25	1.25	1.25	1.25	0.17 0.16 0.16 0.16 0.16 0.16	1.06 1.04 1.02 1.02 1.01 1.02	Key	4
20:22:57	4137.0 4107.0	256 260	8.6 8.6	0.2 0.2	70 73	-27 -27	0.54 0.54 0.54 0.63	4 4 4 4	1.26 1.25	1.25 1.25	1.25 1.25	1.25 1.25	0.16 0.16 0.16 0.16 0.16 0.16	1.00 1.00 1.01 1.02 1.01 1.02	Off Off	4 4
20:22:58	4137.0	260	8.6	0.4	72	-27	0.63 0.54	4 4	1.25	1.25	1.25	1.25	0.16 0.16 0.16 0.16 0.16	1.02 1.01 1.01 1.01 1.02	Off	4
20:22:59	4172.0 4197.0	260 260	8.6 8.6	0.4 0.3	71 69	-27 -27	0.72 0.63 0.63 0.63	4 4 4 4	1.26 1.26	1.25 1.25	1.25 1.25	1.25 1.25	0.16 0.16 0.16 0.16 0.17 0.17	1.01 1.00 1.00 1.00 1.01 1.04	Off Off	4 4
20:23:00	4222.0	258	9.0	0.1	68	-26	0.63 0.63	4 4	1.26	1.25	1.25	1.25	0.17 0.17 0.17 0.17	1.04 1.06 1.06 1.06	Off	5
20:23:01	4252.0 4277.0	258 237	8.6 8.6	0.2 0.4	67 66	-25 -26	0.63 0.63 0.63 0.54	5 5 4 4	1.26 1.26	1.25 1.25	1.25 1.25	1.25 1.25	0.17 0.17 0.17 0.17 0.17 0.17	1.06 1.05 1.06 1.07 1.08 1.07	Off Off	4 5
20:23:02	4307.0	256	8.6	0.2	64	-26	0.54 0.54	4 4	1.26	1.25	1.25	1.25	0.17 0.17 0.17	1.06 1.06 1.06	Off	5
20:23:03	4332.0 4362.0	254 259	9.0 8.6	0.2 0.2	63 62	-26 -24	0.54 0.54 0.54 0.54	4 4 4 4	1.26 1.26	1.25 1.25	1.25 1.25	1.25 1.25	0.17 0.17 0.17 0.17 0.17 0.16	1.06 1.05 1.06 1.05 1.04 1.03	Off	5 5
20:23:04	4392.0	258	9.0	0.2	61	-23	0.54 0.54	4 4	1.26	1.25	1.25	1.25	0.17 0.17 0.17	1.03 1.04 1.04	Off	5
20:23:05	4422.0 4447.0	256	9.4 8.6	0.2 0.2	60 59	-22 -20	0.54 0.54 0.54 0.54	4 4 5 4	1.26 1.26	1.26 1.26	1.26 1.26	1.25	0.17 0.17 0.17 0.17 0.17 0.17	1.04 1.04 1.04 1.05 1.03 1.03	Off	5 5
20:23:06	4477.0	258 236	9.4	0.3	58	-19	0.54 0.54	5 5	1.26	1.26	1.26	1.25 1.26	0.17 0.17 0.17 0.17	1.04 1.04 1.06 1.06	Off Off	5
20:23:07	4502.0 4532.0	258	9.4 9.4	0.2 0.0	57 57	-18 -17	0.54 0.54 0.45 0.45	5 5 5 5	1.26 1.26	1.26 1.26	1.26 1.26	1.26	0.17 0.17 0.17 0.17 0.18 0.17	1.07 1.07 1.07 1.07 1.07 1.08	Off	5 5
20:23:08	4562.0	256 256	9.7	0.0	56	-16	0.36 0.36	5 5	1.26	1.26	1.26 1.26	1.26 1.26	0.18 0.17 0.18 0.18 0.17 0.17	1.08 1.07 1.06 1.06 1.06 1.04	Off Off	5
20:23:09	4592.0 4627.0	256	9.7 10.1	0.0 0.3	55 55	-15 -14	0.36 0.36 0.36	4 4 5	1.26	1.26	1.26	1.26	0.17 0.17 0.17 0.16	1.04 1.00 1.00 0.98	Off	5 5
20:23:10	4662.0	252 255	9.7	0.0	54	-13	0.36 0.36	5 5	1.26 1.26	1.26 1.26	1.26 1.26	1.26 1.26	0.17 0.16 0.17 0.17 0.17 0.17	0.99 1.01 1.01 1.01 1.01 1.02	Off Off	5
20:23:11	4692.0 4727.0	235	10.4 10.8	0.3 0.3	54 54	-13 -12	0.36 0.36 0.36	5 5 5	1.26	1.26	1.26	1.26	0.17 0.17 0.17 0.17 0.17	1.02 1.02 1.02 1.02 1.04	Off	5 5
20:23:12	4767.0	255 254	10.8	0.1	53	-10	0.36 0.45	5 5 5	1.26 1.27	1.26 1.26	1.26 1.26	1.26 1.26	0.17 0.17 0.17 0.17 0.17 0.17	1.03 1.03 1.02 1.02 1.01 1.02	Off Off	5
20:23:13	4807.0	254	11.2	0.0	53	-9	0.54	5	1.27	1.26	1.26	1.26	0.17 0.17	1.02 1.02	Off	5

LOCAL TIME (ref. CVR)	SL ALT. (FEET)	TAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel (g)	VHF	Pitch Trim Stab Pos (degrees)
	4847.0		11.2	0.2	53	-7	0.63 0.72	5 4					0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17	1.03 1.03 1.02 1.01 1.00 1.00 0.98 0.97		4
20:23:14	4882.0	253 250	11.2	0.1	53	-5	0.72 0.81 0.81	5 4 4	1.27 1.27	1.26 1.26	1.26 1.27	1.26 1.26			Off Off	4
20:23:15	4922.0 4957.0	252	11.2 11.2	0.1 0.3	52 52	-3 -3	0.72 0.72 0.72	4 5 4	1.27	1.26	1.27	1.27	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.96 0.97 0.97 0.97 0.97 0.97 0.93 0.92	Off Off	4 4
20:23:16	4997.0	230 251	11.2	0.0	52	-3	0.63 0.54 0.54	4 4 4	1.27 1.27	1.27 1.27	1.27 1.27	1.27 1.27	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Off Off	4
20:23:17	5037.0 5077.0	250	11.2 10.8	0.1 0.2	52 52	-3 -3	0.45 0.45 0.45	4 4 4	1.27	1.27	1.27	1.27	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.93 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Off	4 4
20:23:18	5117.0	250 250	10.8	0.0	52	-3	0.54 0.54 0.63	4 4 4	1.27 1.27	1.27 1.27	1.27 1.27	1.27 1.27	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.91 0.90 0.90 0.90 0.90 0.90 0.90 0.90	Off Off	4
20:23:19	5157.0 5192.0	250	10.4 10.4	0.1 0.0	52 52	-2 -2	0.72 0.72 0.72	4 4 4	1.27	1.27	1.27	1.27	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.89 0.89 0.89 0.88 0.88 0.87 0.87 0.87	Off	4
20:23:20	5227.0	248 229	10.1	0.0	52	-1	0.72 0.72 0.72	5 4 4	1.27 1.27	1.27 1.27	1.27 1.27	1.27 1.27	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86	Off Off	4 4
20:23:21	5262.0 5297.0	248	9.7 9.4	0.0 0.2	52 52	-1 -1	0.72 0.72 0.63	4 4 4	1.27	1.27	1.27	1.27	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86	Off	4
20:23:22	5332.0	248 248	9.4	0.4	52	-1	0.72 0.72 0.72	4 4 4	1.27 1.28	1.27 1.27	1.27 1.27	1.27 1.27	0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.84 0.84 0.84 0.84 0.84 0.84 0.84 0.84	Off Key	4 4
20:23:23	5362.0 5387.0	247	9.0 9.0	0.4 0.4	52 52	-1 -1	0.72 0.72 0.72	4 4 4	1.28	1.27	1.27	1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85	Key	4
20:23:24	5417.0	247 246	8.6	45.7	52	-1	0.72 0.72 0.72	4 4 5	1.28 1.28	1.27 1.27	1.28 1.28	1.28 1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.85 0.86 0.86 0.86 0.87 0.87 0.87 0.87	Key Key	4 4
20:23:25	5447.0 5447.0	246	8.3 8.3	0.3	52 49	0 0	0.63 0.63 0.63	4 4 4	1.28	1.28	1.28	1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.88 0.87 0.87 0.87 0.87 0.87 0.87 0.87	Key	4
20:23:26	5497.0	246 246	8.3	0.2 0.3	52	1	0.72 0.63 0.63	4 4 4	1.28 1.28	1.28 1.28	1.28 1.28	1.28 1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.87 0.86 0.86 0.86 0.85 0.85 0.85 0.85	Off Off	4 4
20:23:27	5522.0 5542.0	246	7.9 7.9	0.5	52	1	0.63 0.63 0.63	4 4 4	1.28	1.28	1.28	1.27	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87	Off	4
20:23:28	5567.0	246 247	7.6	0.5 0.5	52	1	0.63 0.63 0.72	4 4 5	1.28 1.28	1.28 1.28	1.28 1.28	1.28 1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.88 0.88 0.89 0.89 0.89 0.89 0.89 0.89	Off Off	4 4
20:23:29	5587.0 5607.0	248	7.6	0.4	52 52	1	0.63 0.63 0.63	4 5 4	1.28	1.28	1.28	1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.90 0.89 0.89 0.89 0.89 0.89 0.89 0.89	Off	4
20:23:30	5592.0	248 248	7.2 7.2	0.4 0.5	49	1 2	0.63 0.63 0.63	4 5 4	1.28 1.28	1.28 1.28	1.28 1.28	1.28 1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90	Off Off	4 4
20:23:31	5647.0 5662.0	248	7.2	0.5	53	3	0.54 0.54 0.54	4 5 4	1.28	1.28	1.28	1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.89 0.89 0.89 0.88 0.88 0.88 0.88 0.88	Off	4
20:23:32	5677.0	248 248	6.8 6.5	0.4 0.5	53 53	4 4	0.54 0.54 0.54	5 5 4	1.28 1.28	1.28 1.28	1.28 1.28	1.28 1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.89 0.90 0.90 0.90 0.90 0.90 0.90 0.91	Off Off	4 4
20:23:33	5697.0	248	6.5	0.5	53	6	0.54 0.54 0.54	5 5 5	1.28	1.28	1.28	1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.92 0.92 0.91 0.91 0.91 0.90 0.90 0.90	Off	4
20:23:34	5712.0 5727.0	246 248	6.1 6.1	0.5 0.5	53 54	7 8	0.54 0.54 0.54	5 4 4	1.28 1.28	1.28 1.28	1.28 1.28	1.28 1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.90 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Off Off	4 4
20:23:35	5702.0	248	5.8	0.3	51	9	0.63 0.63 0.63	4 4 4	1.28	1.28	1.29	1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.88 0.88 0.88 0.86 0.86 0.85 0.85 0.85	Off	4
20:23:36	5762.0 5772.0	248 248	5.8 5.8	0.5 0.5	54 54	10 12	0.72 0.72 0.63	4 4 4	1.28 1.28	1.28 1.28	1.29 1.29	1.28 1.28	0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.85 0.86 0.86 0.86 0.86 0.86 0.86 0.86	Off Off	4 4
20:23:37	5777.0	250	5.8	0.5	55	13	0.54 0.54	4 5	1.28	1.28	1.29	1.28	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88	Off	4

LOCAL TIME (ref. CVR)	SL ALT. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Pos (degrees)
20:23:38	5787.0 5797.0	250 251	5.4 5.0	0.5 0.6	55 56	13 13	0.36 0.36 0.36 0.36	5 5 5 5	1.28 1.28	1.28 1.28	1.29 1.29	1.28 1.28	0.16 0.16 0.16 0.16	0.92 0.92 0.92 0.93	Off Off	4 4
20:23:39	5807.0	252	5.0	0.6	57	14	0.36 0.36	5 4	1.28	1.28	1.29	1.28	0.16 0.16 0.16 0.16	0.93 0.93 0.93 0.93	Off	4
20:23:40	5772.0 5822.0	252 251	5.0 4.7	0.5 0.6	54 58	14 15	0.36 0.45 0.54 0.54	4 4 5 5	1.28 1.28	1.28 1.28	1.29 1.29	1.28 1.28	0.16 0.16 0.16 0.16	0.92 0.91 0.92 0.93	Off Off	4 28
20:23:41	5832.0	252	4.3	0.5	59	16	0.63 0.63	4 4	1.28	1.28	1.29	1.28	0.16 0.16 0.16 0.16	0.94 0.94 0.95 0.95	Off	4
20:23:42	5842.0 5847.0	252 253	4.3 4.3	0.5 0.7	59 60	17 18	0.72 0.81 0.90 0.81	4 4 4 4	1.28 1.28	1.28 1.28	1.29 1.29	1.28 1.28	0.16 0.16 0.16 0.16	0.95 0.94 0.94 0.93	Key Key	4 4
20:23:43	5847.0	254	4.0	0.7	60	19	0.72 0.72	5 4	1.28	1.28	1.29	1.28	0.16 0.16 0.16 0.16	0.93 0.93 0.93 0.93	Key	4
20:23:44	5852.0 5812.0	254 253	3.6 4.0	0.7 0.6	61 59	19 20	0.63 0.63 0.54 0.54	5 5 4 4	1.28 1.28	1.28 1.28	1.29 1.29	1.28 1.28	0.16 0.16 0.16 0.16	0.93 0.93 0.94 0.94	Key Off	4 4
20:23:45	5857.0	254	3.6	0.6	63	21	0.54 0.54	4 5	1.28	1.28	1.29	1.28	0.16 0.16 0.16 0.16	0.94 0.94 0.95 0.95	Off	4
20:23:46	5857.0 5857.0	256 257	3.6 3.2	0.6 0.5	64 65	21 21	0.54 0.54 0.54 0.54	4 4 4 4	1.27 1.27	1.28 1.28	1.28 1.28	1.28 1.28	0.16 0.16 0.16 0.16	0.95 0.95 0.96 0.96	Off	4 4
20:23:47	5862.0	257	3.2	0.6	66	21	0.54 0.63	4 4	1.27	1.28	1.28	1.28	0.16 0.16 0.16 0.16	0.96 0.96 0.97 0.97	Key Key	4
20:23:48	5857.0 5857.0	262	2.9 2.9	0.6 0.5	67 68	22 22	0.63 0.72 0.72 0.72	4 4 5 5	1.27 1.27	1.28 1.28	1.28 1.28	1.28 1.28	0.16 0.16 0.16 0.16	0.97 0.97 0.98 0.97	Key	4 4
20:23:49	5857.0	257 239	2.9	1.1	69	23	0.72 0.72 0.72	4 4 4	1.27	1.28	1.28	1.28	0.15 0.16 0.16 0.16	0.98 0.98 0.98 0.98	Off Off	4
20:23:50	5852.0 5852.0	258	2.9 2.9	1.2 1.4	70 71	23 24	0.72 0.72 0.72	4 4 5	1.27 1.27	1.28 1.27	1.28 1.28	1.28 1.28	0.16 0.16 0.16 0.16	0.98 0.98 0.98 1.00	Off	4 4
20:23:51	5847.0	261 263	3.6	1.4	72	24	0.72 0.72 0.72	5 5 5	1.27	1.28	1.28 1.28	1.28 1.28	0.16 0.16 0.16 0.16	1.03 1.04 1.07 1.10	Off Off	4
20:23:52	5842.0 5842.0	264	3.6 4.0	1.4 1.1	73 75	24 24	0.72 0.72 0.72	5 5 5	1.27	1.28	1.29	1.28	0.17 0.17 0.17 0.17	1.14 1.14 1.15 1.15	Off	4 4
20:23:53	5842.0	270 264	4.0	1.1	76	23	0.72 0.72	6 5	1.27 1.27	1.27 1.27	1.29 1.28	1.28 1.28	0.17 0.17 0.17 0.17	1.14 1.13 1.13 1.16	Off Off	4
20:23:54	5842.0 5842.0	246	4.3 5.0	1.2 1.2	77 78	24 24	0.72 0.72 0.72 0.72	5 5 5 5	1.28	1.27	1.29	1.28	0.18 0.18 0.18 0.18	1.16 1.16 1.17 1.18	Off	4 4
20:23:55	5847.0	263 266	5.4	1.0	79	23	0.72 0.72	5 5	1.28 1.28	1.27 1.27	1.28 1.28	1.28 1.28	0.18 0.18 0.18 0.18	1.20 1.20 1.19 1.19	Off Off	4
20:23:56	5852.0 5862.0	266	5.8 5.8	1.0 0.4	80 81	23 23	0.72 0.72 0.72	5 5 5	1.28	1.27	1.28	1.28	0.18 0.18 0.18 0.18	1.22 1.22 1.20 1.20	Off	4 4
20:23:57	5877.0	266 274	5.8	0.5	82	23	0.72 0.72 0.72	5 5 5	1.28 1.29	1.27 1.27	1.28 1.28	1.28 1.28	0.18 0.18 0.17 0.17	1.18 1.17 1.16 1.15	Off Off	4
20:23:58	5892.0 5907.0	262	5.8 6.1	0.3 0.2	84 84	22 23	0.72 0.72 0.72	5 5 4	1.29	1.27	1.28	1.28	0.17 0.17 0.17 0.17	1.15 1.14 1.13 1.12	Off	4 4
20:23:59	5922.0	249 267	6.5	0.1	86	23	0.72 0.72	4 4	1.30 1.30	1.27 1.27	1.28 1.28	1.28 1.28	0.17 0.17 0.16 0.16	1.11 1.11 1.10 1.10	Off	4
20:24:00	5947.0 5962.0	266	6.5 6.5	0.0 0.1	86 87	23 24	0.63 0.72 0.72	4 4 4	1.29	1.27	1.28	1.28	0.16 0.16 0.16 0.16	1.10 1.10 1.09 1.10	Off	4 4
20:24:01	5982.0	268 268	6.8	0.0	89	24	0.72 0.72	4 4	1.29 1.29	1.27 1.27	1.28 1.28	1.28 1.28	0.16 0.16 0.16 0.16	1.10 1.11 1.10 1.11	Off Off	4
20:24:02	6002.0 6022.0	266	6.8 6.8	0.0 0.3	90 90	24 23	0.72 0.72 0.72	95 4 4	1.29	1.26	1.28	1.28	0.16 0.16 0.16 0.16	1.11 1.11 1.10 1.09	Off	4

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel. (g)	Vert. Accel. (g)	VHF	Pitch Trim Pos (degrees)
20:24:03	6042.0	265 250	7.2	0.7	91	24	0.72 0.72 0.63	5 4 4	1.29 1.29	1.27 1.27	1.28 1.28	1.28 1.28	0.16 0.16 0.16 0.16 0.16	1.09 1.09 1.09 1.09 1.11	Off Off	4 4
20:24:04	6062.0 6087.0	268	7.6 7.9	0.8 0.7	93 94	23 23	0.63 0.63 0.63	4 5 5	1.29	1.27	1.28	1.28	0.16 0.16 0.17 0.17 0.17	1.12 1.13 1.13 1.14 1.15	Off	4
20:24:05	6107.0	268 268	8.3	0.6	95	23	0.63 0.63 0.63	5 5 5	1.29 1.29	1.27 1.27	1.28 1.28	1.28 1.28	0.17 0.17 0.17 0.18 0.17	1.16 1.18 1.19 1.19 1.18	Off Off	4 4
20:24:06	6137.0 6167.0	268	8.6 9.0	0.7 0.4	96 97	22 22	0.63 0.63 0.72	5 5 5	1.29	1.27	1.28	1.28	0.17 0.17 0.17 0.17 0.17	1.18 1.18 1.17 1.17 1.17	Off	4
20:24:07	6202.0	267 267	9.4	0.2	98	22	0.72 0.72 0.72	5 5 5	1.28 1.29	1.27 1.27	1.28 1.28	1.28 1.28	0.17 0.17 0.17 0.17 0.17	1.17 1.17 1.16 1.15 1.13	Off Off	4 4
20:24:08	6237.0 6272.0	252	9.4 9.4	0.1	99 100	21 21	0.72 0.72 0.72	4 4 4	1.29	1.27	1.29	1.28	0.16 0.16 0.17 0.17 0.16	1.11 1.10 1.10 1.10 1.11	Off	4
20:24:09	6307.0	266 266	9.7	0.2 0.0	101	21	0.72 0.72 0.72	4 4 4	1.29 1.29	1.27 1.27	1.29 1.29	1.29 1.29	0.16 0.16 0.16 0.16 0.16	1.11 1.11 1.10 1.09 1.08	Off Off	4 4
20:24:10	6342.0 6377.0	266	9.7 10.1	0.2	102 102	21 20	0.72 0.72 0.72	4 4 4	1.29	1.27	1.29	1.28	0.16 0.16 0.16 0.16 0.16	1.07 1.07 1.07 1.08 1.07	Off	4
20:24:11	6417.0	266 265	10.1	0.4 0.7	103	19	0.72 0.72 0.72	4 4 4	1.29 1.29	1.27 1.27	1.29 1.29	1.29 1.29	0.16 0.16 0.16 0.16 0.16	1.07 1.07 1.07 1.07 1.07	Off Off	4 4
20:24:12	6452.0 6492.0	264	10.8	0.5	104 105	19	0.72 0.72 0.72	5 5 5	1.29	1.27	1.29	1.29	0.16 0.17 0.17 0.17 0.17	1.09 1.10 1.11 1.13 1.13	Off	4
20:24:13	6467.0	264 262	11.2 11.2	0.5 0.2	102	17 15	0.72 0.72	5 5	1.29 1.29	1.27 1.28	1.29 1.30	1.29 1.29	0.17 0.17 0.17 0.17 0.17	1.13 1.13 1.13 1.13 1.13	Off Off	4 4
20:24:14	6577.0 6622.0	262	11.5	0.3	106	14	0.72 0.72 0.72	5 5 5	1.29	1.27	1.30	1.29	0.17 0.17 0.17 0.17 0.17	1.11 1.10 1.09 1.08 1.08	Off	4
20:24:15	6667.0	262 261	11.5 11.9	0.1 0.0	107 107	12 10	0.72 0.72	4 4	1.29 1.29	1.28 1.28	1.30 1.30	1.29 1.29	0.17 0.17 0.16 0.16 0.16	1.08 1.08 1.07 1.04 1.03	Off Off	4 4
20:24:16	6717.0	260	11.9	0.1	108	8	0.81 0.90 0.90	4 4 4	1.29	1.28	1.30	1.30	0.16 0.16 0.16 0.16 0.16	1.03 1.01 1.00 0.98 0.98	Off	4
20:24:17	6767.0 6817.0	259 259	11.9 11.9	0.0 0.0	108 108	6 5	0.90 0.90 0.90	5 4 4	1.29 1.29	1.28 1.28	1.30 1.30	1.30 1.30	0.16 0.16 0.16 0.16 0.16	0.98 0.98 0.98 0.97 0.97	Off Off	4 4
20:24:18	6812.0	257	12.2	0.0	104	3	0.81 0.81 0.81	4 4 4	1.29	1.28	1.30	1.30	0.16 0.16 0.15 0.15 0.16	0.97 0.97 0.96 0.96 0.95	Off	4
20:24:19	6922.0 6972.0	258 256	11.9 11.9	0.0 0.0	109 109	1 0	0.72 0.72 0.72	4 4 4	1.29 1.29	1.28 1.28	1.31 1.31	1.30 1.30	0.15 0.15 0.15 0.15 0.15	0.94 0.93 0.92 0.93 0.93	Off Off	4 4
20:24:20	7022.0	256	11.9	0.0	109	0	0.72 0.72	4 4	1.29	1.29	1.31	1.31	0.15 0.15	0.92 0.91	Off	4
20:24:21	7072.0 7122.0	256 255	11.9 11.9	0.1 0.0	109 109	-1 -1	0.72 0.72 0.72	4 4 4	1.30 1.30	1.29 1.29	1.31 1.31	1.31 1.31	0.15 0.15 0.15 0.16 0.15	0.91 0.92 0.93 0.93 0.93	Off Off	4 4
20:24:22	7172.0	254	11.9	0.0	108	-2	0.72 0.72	4 4	1.30	1.29	1.31	1.31	0.16 0.16	0.92 0.92	Off	4
20:24:23	7187.0 7272.0	254 252	11.9 11.5	0.0 0.1	104 108	-3 -3	0.72 0.63 0.72 0.72	4 4 4 4	1.30 1.30	1.29 1.29	1.32 1.32	1.31 1.31	0.16 0.16 0.16 0.16 0.16	0.93 0.93 0.93 0.92 0.91	Off Off	4 4
20:24:24	7322.0	252	11.5	0.0	108	-4	0.72 0.63	4 4	1.30	1.29	1.32	1.31	0.15 0.16 0.15	0.90 0.88 0.88	Off	4
20:24:25	7372.0 7417.0	252 251	11.2 11.2	0.0 0.1	108 108	-4 -6	0.63 0.72 0.72 0.72	4 4 4 4	1.30 1.30	1.29 1.29	1.32 1.32	1.32 1.32	0.15 0.15 0.15 0.15	0.87 0.86 0.86 0.86	Off Off	4 4
20:24:26	7467.0	247	11.2	0.1	107	-7	0.63 0.72	4 4	1.31	1.29	1.32	1.32	0.15 0.15 0.15	0.86 0.85 0.86	Off	4
20:24:27	7512.0 7547.0	250 249	11.2 10.8	0.2 0.2	107 102	-8 -9	0.63 0.63 0.54	5 4 4	1.31 1.31	1.30 1.30	1.32 1.32	1.32 1.32	0.16 0.16 0.16	0.88 0.88 0.89	Off Off	4 4

25

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel (g)	VHF	Pitch Trim Pos (degrees)
20:24:28	7597.0	248	10.8	0.2	107	-9	0.63 0.54 0.63	4 4 4	1.31	1.30	1.33	1.32	0.16 0.16 0.15 0.15 0.15	0.89 0.88 0.87 0.86 0.86	Off	4
20:24:29	7637.0 7682.0	248 248	10.4 10.1	0.2 -0.1	106 106	-9 -9	0.63 0.63	4 4 4	1.31 1.31	1.30 1.30	1.33 1.33	1.32 1.32	0.15 0.15 0.15 0.15 0.15	0.86 0.86 0.86 0.86 0.85	Off	4 4
20:24:30	7717.0	246	9.7	0.0	105	-9	0.72 0.72 0.72	4 4 4	1.31	1.30	1.33	1.32	0.15 0.15 0.15 0.15 0.15	0.84 0.83 0.84 0.84 0.85	Off Off	4
20:24:31	7757.0 7787.0	246	9.0 8.6	0.1 0.2	105 104	-8 -8	0.72 0.72 0.63	5 4 4	1.31 1.31	1.30 1.30	1.33 1.33	1.32	0.15 0.15 0.15 0.15 0.15	0.83 0.83 0.83 0.83 0.83	Off	4 4
20:24:32	7837.0	246 244	8.6	0.2	100	-9	0.54 0.54	4 4	1.31	1.30	1.33	1.32 1.32	0.15 0.15 0.15 0.15 0.15	0.83 0.83 0.84 0.84 0.83	Off Off	4
20:24:33	7847.0 7877.0	246	8.6 8.3	0.2 0.2	103 103	-9 -9	0.54 0.54 0.54 0.45	4 4 4 4	1.31 1.32	1.31 1.31	1.33	1.33	0.15 0.15 0.15 0.15 0.15	0.83 0.83 0.83 0.83 0.83	Off	4 4
20:24:34	7902.0	246 246	7.9	0.0	103	-9	0.36 0.36	4 4	1.32	1.31	1.33 1.33	1.33 1.33	0.15 0.15 0.15 0.15 0.15	0.83 0.83 0.83 0.84 0.84	Off Off	4
20:24:35	7932.0 7957.0	246	7.6 6.8	0.2 0.0	103 103	-8 -8	0.36 0.36 0.45 0.45	4 4 5 4	1.32	1.31	1.33	1.33	0.15 0.15 0.15 0.15 0.15	0.84 0.84 0.83 0.83 0.83	Off	4 4
20:24:36	7982.0	246 246	6.5	0.3	102	-8	0.54 0.54	5 4	1.32 1.32	1.31 1.31	1.34 1.33	1.33 1.33	0.15 0.15 0.15 0.15 0.15	0.83 0.83 0.83 0.83 0.83	Off Off	4
20:24:37	8007.0 8027.0	225	6.5 6.1	0.4 0.5	99 102	-8 -7	0.54 0.63 0.63 0.63	4 4 4 4	1.32	1.31	1.33	1.33	0.15 0.15 0.15 0.15 0.15	0.83 0.83 0.83 0.83 0.83	Off	4 4
20:24:38	8047.0	245 246	6.1	0.6	102	-7	0.54 0.54	4 4	1.32 1.32	1.31 1.31	1.34 1.33	1.33 1.33	0.15 0.15 0.15 0.15 0.15	0.83 0.83 0.83 0.83 0.83	Off	4
20:24:39	8062.0 8077.0	247	6.1 5.8	0.4 0.4	101 101	-6 -6	0.63 0.63 0.54	4 4 4	1.32	1.31	1.33	1.33	0.15 0.15 0.16 0.16 0.16	0.85 0.86 0.87 0.88 0.88	Off	4 4
20:24:40	8092.0	247 246	5.4	0.5	101	-4	0.54 0.54 0.54	4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.16 0.16 0.16 0.16 0.16	0.89 0.89 0.89 0.89 0.89	Off Key	4
20:24:41	8102.0 8117.0	248	5.0 5.4	0.5 0.6	101 101	-3 -3	0.54 0.54 0.54	5 4 4	1.32	1.31	1.33	1.33	0.16 0.15 0.15 0.15 0.16	0.89 0.88 0.87 0.87 0.87	Off	4 4
20:24:42	8127.0	226 248	5.4	0.7	101	-1	0.54 0.54 0.54	5 5 5	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.16 0.16 0.16 0.16 0.16	0.91 0.93 0.94 0.94 0.94	Key Key	4
20:24:43	8137.0 8147.0	250	5.8 5.8	0.7 0.5	100 100	-1 0	0.54 0.54 0.54	5 5 5	1.32	1.31	1.34	1.33	0.16 0.16 0.16 0.16 0.16	0.95 0.98 0.98 0.98 0.98	Key	4 4
20:24:44	8157.0	250 250	6.1	0.5	100	1	0.54 0.54 0.54	5 5 5	1.32 1.32	1.31 1.31	1.34 1.33	1.33 1.33	0.17 0.17 0.17 0.17 0.17	0.98 0.98 0.98 0.99 0.99	Key Key	4
20:24:45	8172.0 8187.0	250	6.1 6.1	0.5 0.5	101 101	1 1	0.54 0.54 0.54	5 5 5	1.32	1.31	1.33	1.33	0.17 0.17 0.17 0.17 0.17	0.99 0.99 0.99 0.99 0.98	Key	4
20:24:46	8197.0	249 232	6.5	0.3	101	1	0.54 0.63 0.72	5 5 5	1.32 1.32	1.31 1.31	1.33 1.33	1.33 1.33	0.17 0.16 0.16 0.16 0.16	0.99 0.99 0.99 0.99 0.99	Key Key	4 4
20:24:47	8217.0 8232.0	251	6.5 6.5	0.5 0.4	101 101	1 1	0.72 0.72 0.72	5 5 5	1.32	1.31	1.33	1.33	0.17 0.17 0.16 0.16 0.16	0.99 0.98 0.98 0.98 0.98	Key	4
20:24:48	8247.0	252 252	6.5	0.2	101	1	0.72 0.72 0.72	5 5 5	1.32 1.32	1.31 1.31	1.33 1.33	1.33 1.33	0.16 0.16 0.16 0.16 0.16	0.98 0.98 0.98 0.98 0.98	Key Key	4 4
20:24:49	8267.0 8282.0	252	6.5 6.5	0.2 0.4	101 101	1 0	0.72 0.72 0.81	5 4 4	1.32	1.31	1.33	1.33	0.16 0.16 0.16 0.16 0.16	0.97 0.96 0.96 0.96 0.96	Off	4
20:24:50	8297.0	252 250	6.5	0.4	101	0	0.72 0.81 0.72	5 4 5	1.32 1.32	1.31 1.31	1.33 1.33	1.33 1.33	0.16 0.16 0.16 0.16 0.16	0.96 0.96 0.95 0.95 0.95	Off Off	4 4
20:24:51	8317.0 8332.0	232	6.8 6.8	0.2	101 101	0 0	0.81 0.72 0.72	4 4 4	1.32	1.31	1.33	1.33	0.16 0.16 0.16 0.16 0.16	0.95 0.96 0.97 0.97 0.97	Off	4
20:24:52	8352.0	251 250	6.8	0.3 0.3	101	0	0.72 0.90	4 4	1.32 1.32	1.31 1.31	1.34 1.33	1.33 1.33	0.16 0.16 0.16 0.16 0.16	0.97 0.97 0.97 0.97 0.97	Off Off	4 4

LOCAL TIME (ref. CVR)	IAS Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
20:24:53	8367.0 8382.0	252	6.8 7.2	0.2	101 101	-1 -1	0.81 0.72 0.72	4 5 4	1.32	1.31	1.34	1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.95 0.95 0.97 0.97 0.96 0.97 0.96 0.96 0.97 0.97	Key	4
20:24:54	8402.0	252 250	7.2	0.2 0.2	101	-1	0.72 0.72 0.72	5 5 4	1.32	1.31	1.33	1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.96 0.96 0.97 0.97 0.96 0.96 0.97 0.97 0.96 0.96	Key Key	4 4
20:24:55	8417.0 8437.0	250	7.2	0.3	101 101	-2	0.72 0.72 0.72	5 5 5	1.32	1.31	1.33	1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Key	4
20:24:56	8457.0	233 252	7.2 7.2	0.2 0.2	100	-3 -3	0.72 0.72 0.72	4 4 4	1.32 1.32	1.31 1.31	1.33 1.34	1.33 1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.97 0.98 0.98 0.97 0.97 0.96 0.96 0.96 0.96 0.96	Key Off	4 4
20:24:57	8477.0 8497.0	250	7.2	0.0	100	-4	0.81 0.81 0.72	5 5 4	1.32	1.31	1.34	1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.97 0.97 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96	Off	4
20:24:58	8512.0	252 251	7.2 7.2	0.2 0.0	100 100	-4 -5	0.72 0.72 0.72	5 5 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.96 0.95 0.95 0.96 0.96 0.95 0.95 0.95 0.95 0.95	Off Off	4 4
20:24:59	8532.0	251	7.2	0.3	100	-5	0.72 0.72 0.72	4 4 4	1.32	1.31	1.34	1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95	Off	4
20:25:00	8552.0 8572.0	251 251	7.2 6.8	0.2 0.0	99 99	-5 -6	0.72 0.72 0.63	5 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.94 0.94 0.94 0.93 0.93 0.93 0.93 0.93 0.93 0.93	Off Off	4 4
20:25:01	8592.0	251	6.8	0.4	99	-6	0.72 0.72 0.72	4 4 4	1.32	1.31	1.34	1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93	Off	4
20:25:02	8607.0 8627.0	251 251	6.8 6.8	0.2 0.2	99 99	-5 -6	0.72 0.72 0.72	4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93	Off Off	4 4
20:25:03	8642.0	251	6.5	0.3	98	-5	0.72 0.72	4 4	1.32	1.31	1.34	1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93	Off	4
20:25:04	8662.0 8677.0	252 252	6.5 6.5	0.2 0.3	98 98	-5 -5	0.72 0.72 0.72 0.72	4 4 4 5	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93	Off Off	4 4
20:25:05	8697.0	252	6.5	0.2	98	-4	0.72 0.72	4 4	1.32	1.31	1.34	1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.93 0.93 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Off	4
20:25:06	8777.0 8727.0	252 252	6.5 6.1	0.2 0.4	93 97	-4 -3	0.72 0.72 0.72	4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Off Off	4 4
20:25:07	8747.0	252	5.8	0.3	97	-3	0.72 0.63 0.72	4 4 4	1.32	1.31	1.34	1.32	0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.91 0.91 0.90 0.89 0.89 0.88 0.88 0.88 0.88 0.88	Off	4
20:25:08	8757.0 8772.0	252 250	5.8 5.8	0.4 0.5	97 97	-3 -2	0.63 0.63 0.63	4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.88	Off Off	4 4
20:25:09	8787.0	252	5.8	0.5	97	-1	0.63 0.54 0.54	4 4 4	1.32	1.31	1.34	1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.88 0.89 0.90 0.91 0.91 0.91 0.91 0.91 0.91 0.91	Off	4
20:25:10	8797.0 8877.0	254 253	5.8 5.8	0.5 0.5	97 92	-1 -1	0.54 0.54 0.54	4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.95 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96	Off Off	4 4
20:25:11	8822.0	254	6.1	0.5	97	0	0.54 0.63	4 4	1.32	1.31	1.34	1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Off	4
20:25:12	8837.0 8852.0	254 254	6.1 6.1	0.5 0.5	97 97	0 0	0.63 0.72 0.63 0.63	4 4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.97 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off	4 4
20:25:13	8867.0	253	6.5	0.0	97	1	0.72 0.63	4 4	1.63	1.31	1.34	1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off Off	4
20:25:14	8877.0 8892.0	252	6.5 6.5	0.1 0.1	97 97	1 1	0.72 0.72 0.72 0.72	5 4 5 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.98 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Off	4 4
20:25:15	8977.0	254 254	6.5	0.1	93	1	0.72 0.72	4 4	1.32	1.31	1.34	1.33 1.33	0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16 0.16	0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Off Off	4
20:25:16	8927.0 8937.0	255	6.5 6.5	0.3 0.1	97 97	1 1	0.72 0.72 0.72 0.72	4 4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96	Off	4 4
20:25:17	8957.0	254	6.5	0.2	97	1	0.72	4	1.32	1.31	1.34	1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	Off	4

LOCAL TIME (ref. CVR)	ASL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
20:25:18	8972.0 8987.0	255	6.5 6.1	0.2 0.1	97 97	1	0.72 0.72 0.72 0.72	4 4 4 4	1.32	1.31	1.34	1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.94 0.94 0.94 0.94 0.95 0.95 0.96	Off	4 4
20:25:19	8997.0	258 255	6.1	0.1	97	0	0.72 0.72	5 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.96 0.96 0.96 0.96 0.97 0.96 0.96	Off Off	4
20:25:20	9077.0 9032.0	258	6.5 6.5	0.0 0.2	93 97	0 0	0.72 0.72 0.72 0.72	4 4 4 4	1.32	1.31	1.34	1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.96 0.96 0.96 0.96 0.96 0.96 0.96	Off	4 4
20:25:21	9047.0	252 258	6.5	0.2	97	0	0.72 0.72	4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.96 0.96 0.96 0.96 0.95 0.95 0.95	Off Off	4
20:25:22	9062.0 9082.0	256	6.5 6.5	0.0 0.2	97 97	0 0	0.72 0.72 0.72	4 4 4	1.32	1.31	1.34	1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.94 0.94 0.95 0.95 0.95 0.95 0.95	Off	4 4
20:25:23	9097.0	255 258	6.5	0.2	97	0	0.72 0.72 0.72	4 5 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.95 0.95 0.95 0.95 0.95 0.95 0.95	Off Off	4
20:25:24	9112.0 9127.0	253	6.1 6.5	0.0 0.2	97 97	0 0	0.72 0.72 0.72	5 4 4	1.32	1.31	1.34	1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.96 0.95 0.95 0.94 0.94 0.94 0.94	Off	4 4
20:25:25	9142.0	238 254	6.5	0.1	97	0	0.72 0.72 0.72	4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.96 0.96 0.94 0.93 0.94 0.94 0.94	Off Off	4
20:25:26	9157.0 9172.0	259	6.5 6.8	0.2 0.4	97 97	-1 -1	0.72 0.72 0.72	4 4 4	1.32	1.31	1.34	1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.95 0.96 0.97 0.98 0.98 0.98 0.98	Off	4 4
20:25:27	9187.0	256 254	6.8	0.5	97	-1	0.72 0.72 0.72	4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.16 0.16 0.16 0.16 0.16 0.16	0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off Off	4
20:25:28	9207.0 9222.0	259	6.8 6.8	0.5 0.2	97 97	-1 -1	0.72 0.72 0.72	5 4 5	1.32	1.31	1.34	1.33	0.15 0.16 0.16 0.16 0.16 0.16 0.16	0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off	4
20:25:29	9237.0	254 235	7.6	0.2	97	-1	0.72 0.72 0.72	4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.16 0.16 0.16 0.16 0.16 0.16	0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off Off	4 4
20:25:30	9257.0 9277.0	258	7.6 7.6	0.2 0.2	97 97	-1 -2	0.72 0.72 0.72	4 5 5	1.32	1.31	1.34	1.33	0.15 0.16 0.16 0.16 0.16 0.16 0.16	0.98 0.98 0.98 0.98 0.99 0.99 1.00	Off	4
20:25:31	9292.0	254 256	7.6	0.0	97	-2	0.72 0.72	4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.16 0.16 0.16 0.16 0.16 0.16	0.99 0.99 0.98 0.98 0.98 0.98 0.98	Off Off	4 4
20:25:32	9317.0 9337.0	255	7.6 7.6	0.1 0.2	97 97	-2 -2	0.72 0.72 0.72	4 4 4	1.32	1.31	1.34	1.33	0.15 0.16 0.16 0.16 0.15 0.15 0.15	0.99 0.98 0.98 0.97 0.97 0.97 0.97	Off	4
20:25:33	9357.0	254 252	7.6	0.3	97	-3	0.72 0.72 0.81	4 5 5	1.32	1.31	1.34	1.33	0.15 0.16 0.16 0.16 0.15 0.15 0.15	0.97 0.97 0.98 0.98 0.98 0.98 0.98	Off	4 4
20:25:34	9382.0 9402.0	236	7.6 7.9	0.4	96 96	-3 -2	0.81 0.81 0.72	4 4 5	1.32	1.31	1.34	1.33	0.15 0.16 0.16 0.16 0.16 0.16 0.16	0.98 0.98 0.98 0.98 0.98 0.98 0.98	Key	4
20:25:35	9422.0	252 252	7.6	0.3 0.2	96	-2	0.72 0.72 0.72	4 4 4	1.32 1.32	1.31 1.31	1.33 1.33	1.33 1.33	0.15 0.16 0.16 0.15 0.15 0.15 0.15	0.98 0.98 0.98 0.97 0.96 0.95 0.95	Key Key	4 4
20:25:36	9447.0 9472.0	252	7.6 7.6	0.3	96 96	-2 -2	0.72 0.72 0.72	4 4 4	1.32	1.31	1.33	1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.95 0.95 0.95 0.95 0.95 0.95 0.95	Key	4
20:25:37	9492.0	254 252	7.6	0.4 0.3	96	-2	0.72 0.63 0.72	4 4 5	1.32 1.32	1.31 1.30	1.33 1.33	1.33 1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.95 0.94 0.94 0.94 0.94 0.94 0.94	Key Key	4 4
20:25:38	9512.0 9537.0	256	7.6	0.4	96 96	-1	0.72 0.63 0.72	4 5 4	1.32	1.30	1.33	1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.94 0.94 0.94 0.94 0.94 0.94 0.94	Key	4
20:25:39	9557.0	234 252	7.6 7.6	0.3 0.2	96	-2 -2	0.72 0.72 0.72	4 4 4	1.32 1.32	1.31 1.30	1.33 1.33	1.33 1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.94 0.94 0.93 0.93 0.94 0.95 0.95	Key Key	4 4
20:25:40	9582.0 9602.0	252	7.6	0.2	95	-2	0.72 0.63 0.63	4 4 4	1.32	1.31	1.33	1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.95 0.95 0.95 0.95 0.95 0.95 0.95	Key	4
20:25:41	9622.0	254 246	7.6 7.6	0.2 0.3	95 93	-2 -2	0.54 0.63 0.63	4 4 4	1.32 1.32	1.30 1.30	1.33 1.33	1.33 1.33	0.15 0.15 0.15 0.15 0.15 0.15 0.15	0.94 0.95 0.95 0.95 0.95 0.94 0.96	Key Key	4 4

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel (g)	VHF	Pitch Trim Pos (degrees)	Stab Pos (degrees)
20:25:42	9652.0	254	7.2	0.3	94	-1	0.63 0.72 0.63	5 5 5	1.32	1.31	1.33	1.33	0.15 0.15 0.15	0.95 0.94 0.94	Off		4
20:25:43	9662.0 9687.0	250 232	7.2 7.2	0.1 0.0	95 95	-1 0	0.72 0.72 0.72	5 4 4	1.32 1.32	1.31 1.31	1.33 1.33	1.33 1.33	0.15 0.15 0.15	0.93 0.93 0.93	Off Off		4 4 4
20:25:44	9707.0	250	7.2	0.2	95	0	0.63 0.72 0.63	4 4 4	1.32	1.31	1.33	1.33	0.15 0.15 0.15	0.95 0.95 0.95	Off		4
20:25:45	9727.0 9747.0	250 252	7.2 7.2	0.1 0.0	95 95	0 0	0.63 0.63 0.63	4 4 4	1.32 1.32	1.31 1.31	1.33 1.33	1.33 1.33	0.15 0.15 0.15	0.93 0.93 0.93	Off Off		4 4 4
20:25:46	9772.0	253	7.2	0.0	95	0	0.63 0.63	4 5	1.32	1.31	1.33	1.33	0.15 0.15 0.15	0.93 0.94 0.92	Off		4
20:25:47	9787.0 9807.0	251 249	7.2 7.2	0.3 0.3	95 96	0 0	0.63 0.63 0.63	5 5 5	1.32 1.32	1.31 1.31	1.33 1.33	1.33 1.33	0.15 0.15 0.16	0.96 0.98 0.96	Key Key		4 4 4
20:25:48	9832.0	251	6.8	0.4	96	0	0.63 0.63 0.63	4 4 4	1.32	1.31	1.33	1.33	0.15 0.15 0.15	0.97 0.96 0.92	Key		4
20:25:49	9877.0 9877.0	252 252	6.5 6.5	0.2 0.3	96 96	0 0	0.72 0.72 0.81	4 4 4	1.32 1.32	1.31 1.31	1.33 1.33	1.33 1.33	0.15 0.15 0.15	0.89 0.88 0.88	Key Key		4 4 4
20:25:50	9897.0	232	6.5	0.3	96	0	0.90 0.81	4 4	1.32	1.31	1.33	1.33	0.15 0.15 0.15	0.87 0.89 0.91	Key		4
20:25:51	9927.0 9942.0	235 253	6.5 6.5	0.4 0.3	91 92	0 0	0.72 0.72 0.63	4 4 4	1.32 1.32	1.31 1.31	1.33 1.33	1.33 1.33	0.15 0.15 0.15	0.91 0.93 0.94	Key Key		4 4 4
20:25:52	9947.0	254	6.1	0.2	96	0	0.63 0.54	4 5	1.32	1.31	1.34	1.33	0.15 0.15 0.15	0.96 0.94 0.93	Key		4
20:25:53	9967.0 9997.0	252 251	6.1 6.1	0.0 0.0	96 92	1 1	0.63 0.63 0.63	4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.15 0.15	0.92 0.92 0.91	Off Off		4 4 4
20:25:54	10007.	254	6.1	0.3	96	2	0.72 0.81	4 4	1.32	1.31	1.34	1.33	0.15 0.14 0.14	0.90 0.89 0.89	Off		4
20:25:55	10022. 10037.	255 254	5.8 6.1	0.5 0.4	96 96	2 2	0.90 0.90 0.90 0.81	4 4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.32 1.33	0.14 0.14 0.15 0.15	0.88 0.88 0.90 0.91	Off		4 4 4 4
20:25:56	10052.	252	6.1	0.2	96	2	0.72 0.72	4 4	1.32	1.31	1.34	1.33	0.15 0.15 0.15	0.92 0.92 0.92	Off		4
20:25:57	10067. 10077.	253	6.1 6.1	0.4 0.3	96 96	1 1	0.72 0.63 0.63 0.63	4 4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33	0.15 0.15 0.15 0.15	0.92 0.91 0.94 0.95	Off		4 4 4 4
20:25:58	10097.	255 254	6.1	0.3	92	0	0.63 0.72	4 4	1.32	1.31	1.34	1.33 1.33	0.15 0.15 0.15	0.95 0.95 0.95	Off Off		4 4
20:25:59	10107. 10127.	256	6.1 5.8	0.2 0.4	96 97	1 0	0.72 0.72 0.72 0.72	4 4 4 4	1.32 1.64 1.31	1.31 1.31	1.33	1.33	0.15 0.15 0.15 0.15	0.97 0.98 0.97 0.96	Off		4 4 4 4
20:26:00	10137.	256 254	5.8	0.4	96	0	0.72 0.72	4 4	1.32	1.31	1.33 1.33	1.33 1.33	0.15 0.15 0.15	0.97 0.97 0.96	Off Off		4 4
20:26:01	10157. 10172.	254	5.8 5.8	0.2 0.3	96 97	1 1	0.72 0.72 0.72	4 4 4	1.32	1.31	1.33	1.33	0.15 0.15 0.15	0.93 0.94 0.94	Off		4 4 4
20:26:02	10187.	258 254	5.8	0.3	96	1	0.72 0.72	5 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.14 0.14	0.93 0.91 0.88	Off Off		4 4
20:26:03	10192. 10212.	258	5.8 5.8	0.3 0.2	92 96	2 2	0.72 0.72	4 4	1.32	1.31	1.33	1.33	0.15 0.15 0.15	0.97 0.95 0.90	Off		4 4
20:26:04	10222.	255 255	5.8	0.3	96	1	0.63 0.63	5 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.34	0.15 0.15 0.15	0.91 0.93 0.97	Off		4
20:26:05	10242. 10252.	256	5.8 5.8	0.2 0.5	96 96	1 1	0.63 0.63	4 5	1.32	1.31	1.34	1.33	0.15 0.15 0.15	0.96 0.94 0.93	Off		4 4
20:26:06	10267.	252 254	5.8	0.4	97	1	0.72 0.72 0.72	4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.15 0.15	0.97 0.97 0.97	Off Off		4 4 4

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
20:26:07	10282. 10287.	254	5.8 5.8	0.3 0.4	97 93	1 1	0.72 0.72 0.72	5 4 4	1.32	1.31	1.33	1.33	0.15 0.15 0.15 0.15	0.95 0.92 0.94 0.95	Off	4 4 4
20:26:08	10312. 256	258	5.8	0.5	97	1	0.72 0.72 0.81	4 4 4	1.32 1.32	1.31 1.31	1.34 1.34	1.33 1.33	0.15 0.15 0.15	0.96 0.96 0.97	Off Off	4
20:26:09	10322. 10327.	259	6.1 6.1	0.4 0.2	97 94	1 1	0.72 0.72 0.72	5 4 4	1.32	1.31	1.34	1.33	0.15 0.15 0.15 0.15	0.97 0.98 0.99 0.98	Off	4 4
20:26:10	10332. 248 230	248	6.1	0.2	91	1	0.63 0.63 0.54	4 4 4	1.32	1.31	1.34	1.33	0.15 0.15 0.15	0.95 0.95 0.92	Off Off	4
20:26:11	10367. 10382.	254	5.8 5.8	0.2 0.2	97 97	0 0	0.54 0.54 0.63	5 4 5	1.32	1.31	1.34	1.33	0.14 0.15 0.15 0.15	0.92 0.93 0.96 0.95	Off	4
20:26:12	10377. 258	257	6.1	0.5	93	0	0.63 0.63 0.72	4 4 4	1.32	1.31	1.34	1.34	0.15 0.15 0.15	0.97 0.99 0.98	Off	4 4
20:26:13	10412. 10432.	254	6.1 6.5	0.5 0.3	97 97	-1 -1	0.72 0.72 0.72	4 4 4	1.33	1.31	1.34	1.34	0.15 0.15 0.15 0.15	0.94 0.96 0.95 0.95	Off	4
20:26:14	10452. 255 257	255	6.5	0.5	97	-1	0.72 0.72 0.72	4 4 4	1.33	1.31	1.34	1.34	0.15 0.15 0.15	0.94 0.96 0.97	Off Off	4 4
20:26:15	10462. 10482.	256	6.5 6.5	0.4 0.3	97 97	0 0	0.81 0.81 0.81	4 4 4	1.33	1.31	1.34	1.34	0.15 0.15 0.15	0.99 0.99 1.00	Off	4
20:26:16	10492. 258 253	258	6.5	0.2	97	0	0.81 0.72 0.72	5 5 4	1.33	1.31	1.34	1.34	0.15 0.15 0.15 0.15	0.98 0.98 0.98 0.98	Off Off	4 4
20:26:17	10512. 10532.	238	6.5 6.8	0.4	97 97	0 0	0.72 0.72 0.72	5 5 4	1.33	1.31	1.34	1.34	0.15 0.15 0.15	0.98 0.98 0.99	Off	4
20:26:18	10547. 254 256	254	6.8	0.2 0.2	97	0	0.63 0.72 0.72	5 4 5	1.32	1.31	1.34	1.34	0.15 0.15 0.15 0.15	1.00 0.99 0.99 0.98	Off Off	4 4
20:26:19	10567. 10587.	258	6.8	0.5	97	0	0.72 0.72 0.63	5 4 4	1.32	1.31	1.34	1.34	0.15 0.15 0.15	0.98 0.99 0.98	Off	4
20:26:20	10607. 235 262	235	7.2	0.4 0.7	97	0	0.72 0.72 0.72	4 5 4	1.33	1.31	1.34	1.33	0.15 0.15 0.15 0.15	0.98 1.01 1.01 1.01	Off Off	4 4
20:26:21	10627. 10647.	256	7.2	0.5	97 97	0	0.72 0.72 0.63	5 5 4	1.33	1.31	1.34	1.34	0.15 0.15 0.15	1.01 1.02 1.03	Off	4
20:26:22	10672. 240 263	240	7.6 8.3	0.5 0.5	97	0	0.63 0.63 0.72	4 5 5	1.33	1.31	1.34	1.33	0.15 0.15 0.15 0.16	1.05 1.05 1.04 1.04	Off Off	4 4
20:26:23	10697. 10722.	262	8.3	0.1	97	1	0.72 0.72 0.81	5 5 4	1.33	1.31	1.34	1.34	0.16 0.16 0.16	1.08 1.07 1.06	Off	4
20:26:24	10752. 259 260	259	8.3 8.3	0.4 0.3	97 97	1 1	0.81 0.72 0.72	4 4 4	1.33	1.32 1.31	1.34 1.34	1.34 1.34	0.15 0.15 0.15	1.04 1.02 1.00	Off Off	4 4
20:26:25	10777.	264	8.3	0.3	97	1	0.72 0.72 0.72	5 5 5	1.33	1.32	1.34	1.34	0.15 0.15 0.15 0.15	1.01 1.01 1.00 0.99	Off	4
20:26:26	10802. 10832.	262 241	8.3 8.6	0.3 0.2	97 97	0 0	0.72 0.72 0.63	5 4 4	1.33	1.31 1.32	1.34 1.34	1.34 1.34	0.15 0.15 0.15	1.00 1.01 1.01	Off Off	4 4
20:26:27	10867.	258	8.6	0.0	97	-1	0.63 0.63 0.72	4 4 4	1.33	1.32	1.34	1.34	0.15 0.15 0.15 0.15	1.01 1.01 0.99 1.00	Off	4
20:26:28	10902. 10942.	256 258	8.6 8.6	0.1 0.0	98 98	-1 -2	0.72 0.72 0.90	4 4 4	1.33	1.32	1.34	1.34	0.15 0.15 0.15	0.98 0.97 0.93	Off	4 4
20:26:29	10977.	258	8.6	0.2	98	-1	0.90 0.90	4 4	1.33	1.32	1.34	1.34	0.14 0.14 0.14 0.14	0.92 0.92 0.95 0.96	Off	4
20:26:30	11012. 11042.	257 256	8.6 8.6	0.2 0.3	97 97	-1 0	0.99 0.99 1.08 0.99	4 5 4 5	1.33	1.32	1.34	1.34	0.15 0.14 0.14 0.15	0.95 0.96 0.97 1.01	Key Key	4 4
20:26:31	11067.	239	9.0	0.1	96	0	0.90 0.72	5 4	1.33	1.32	1.34	1.34	0.15 0.15 0.15	1.05 1.06 1.03	Key	4

39

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Pos (degrees)	Stab Pos (degrees)
20:26:32	11102. 11137.	256 261	8.6 8.6	0.2 0.0	96 96	1 1	0.72 0.81 0.72 0.72	4 4 3 3	1.33 1.33	1.32 1.32	1.34 1.34	1.34 1.34	0.15 0.14 0.14 0.14 0.14 0.14	0.99 0.98 0.93 0.90 0.87 0.88	Key Key	4 4	4 4
20:26:33	11177.	262	8.6	0.2	96	0	0.63 0.63	4 4	1.33	1.32	1.34	1.34	0.13 0.13	0.88 0.90	Key	4	4
20:26:34	11207. 11237.	261 260	9.0 9.0	0.0 0.2	96 96	0 -1	0.54 0.54 0.54 0.45	4 4 4 4	1.33 1.33	1.32 1.32	1.34 1.34	1.34 1.34	0.14 0.14 0.14 0.14 0.14 0.14	0.92 0.93 0.94 0.94 0.93 0.94	Off Off	4 4	4 4
20:26:35	11272.	260	9.4	0.3	96	-2	0.45 0.36	4 5	1.33	1.32	1.35	1.34	0.14 0.14	0.94 0.94	Off	4	4
20:26:36	11307. 11342.	239 256	9.4 9.4	0.2 0.4	96 96	-3 -3	0.36 0.36 0.45 0.54	4 4 4 4	1.33 1.33	1.32 1.32	1.34 1.34	1.34 1.34	0.14 0.14 0.14 0.14 0.14 0.14	0.93 0.93 0.93 0.92 0.92 0.93	Off Off	4 4	4 4
20:26:37	11377.	259	9.4	0.2	97	-3	0.54 0.63	4 4	1.34	1.32	1.35	1.34	0.14 0.14	0.95 0.95	Off	4	4
20:26:38	11412. 11447.	258 258	9.4 9.4	0.3 0.3	97 97	-3 -1	0.81 0.81 0.81 0.90	4 4 4 4	1.34 1.34	1.32 1.32	1.35 1.35	1.34 1.35	0.14 0.15 0.15 0.14	0.98 0.98 0.98 0.96	Off	4 4	4 4
20:26:39	11482.	256	9.4	0.1	97	-1	0.90 0.90	4 4	1.34	1.33	1.35	1.35	0.14 0.14	0.94 0.93	Off Off	4	4
20:26:40	11517. 11547.	256 256	9.4 9.0	0.2 0.3	96 96	0 0	0.90 0.90 0.81	4 5 4	1.34 1.34	1.33 1.33	1.35 1.35	1.35 1.35	0.14 0.14 0.14	0.92 0.92 0.90	Off	4 4	4 4
20:26:41	11507.	256 256	9.0	0.2	96	0	0.72 0.63	4 4	1.34	1.33	1.36	1.35 1.35	0.14 0.14	0.91 0.92	Off Off	4	4
20:26:42	11607. 11637.	254 254	9.0 8.6	0.3 0.1	96 97	0 0	0.54 0.54	4 4	1.34 1.34	1.33 1.33	1.36 1.36	1.35 1.35	0.14 0.14	0.92 0.92	Off	4 4	4 4
20:26:43	11672.	254 254	8.6	0.0	97	0	0.54 0.63	4 4	1.34	1.33	1.36 1.36	1.35 1.35	0.14 0.14	0.91 0.90	Off Off	4	4
20:26:44	11707. 11742.	253 253	8.3 7.9	0.1 0.2	97 97	0 0	0.72 0.72 0.81 0.81	4 4 4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.35 1.35	0.14 0.14	0.90 0.89	Off	4 4	4 4
20:26:45	11772.	254 254	7.6	0.2	97	0	0.81 0.81	4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.35 1.36	0.13 0.13	0.83 0.82	Off Off	4	4
20:26:46	11732. 11822.	254 254	7.6 7.2	0.0 0.3	93 97	0 1	0.72 0.72 0.72 0.72	4 4 4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.36 1.36	0.13 0.13	0.83 0.83	Off	4 4	4 4
20:26:47	11847.	254 253	7.2	0.2	97	1	0.72 0.72	4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.36 1.34	0.14 0.14	0.86 0.87	Off Off	4	4
20:26:48	11872. 11892.	251 251	6.8 6.5	0.0 0.1	97 97	1 1	0.63 0.72 0.72	4 4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.36 1.36	0.14 0.14	0.88 0.89	Off	4 4	4 4
20:26:49	11917.	253 252	6.5	0.4	97	1	0.72 0.63	4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.36 1.36	0.13 0.14	0.83 0.84	Off Off	4	4
20:26:50	11937. 11902.	256 256	6.1 5.8	0.3 0.2	97 93	1 1	0.72 0.72 0.81	4 4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.35 1.35	0.14 0.14	0.88 0.89	Off	4 4	4 4
20:26:51	11977.	256 256	5.8	0.3	97	1	0.90 0.90 0.90	4 4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.35 1.36	0.14 0.13	0.85 0.85	Off	4	4
20:26:52	11992. 12007.	256 256	5.4 5.4	0.4 0.4	97 97	1 1	0.81 0.72 0.72	4 4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.35 1.35	0.13 0.13	0.86 0.87	Off	4 4	4 4
20:26:53	12022.	256 247	5.0	0.5	97	0	0.72 0.63 0.54	4 4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.35 1.36	0.14 0.14	0.88 0.88	Off Off	4	4
20:26:54	12037. 12047.	257 257	5.0 5.0	0.5 0.4	97 97	0 0	0.63 0.63 0.63	4 5 4	1.35 1.35	1.33 1.33	1.36 1.36	1.36 1.36	0.14 0.14	0.88 0.89	Off	4	4
20:26:55	12012.	256 254	5.0	0.3	93	0	0.72 0.72 0.72	4 4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.35 1.36	0.14 0.14	0.90 0.91	Off Off	4 4	4 4
20:26:56	12072. 12087.	256 256	4.7 4.3	0.3 0.4	97 97	0 0	0.72 0.72	4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.36 1.36	0.14 0.14	0.90 0.90	Off	4	4

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Kudde Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
20:26:57	12097.	255 258	4.3	0.2	97	0	0.72 0.72 0.72	4 4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.36 1.35	0.14 0.14 0.13 0.14 0.14 0.13 0.13	0.89 0.89 0.89 0.88 0.88 0.88 0.87	Off Off	4 4
20:26:58	12107. 12117.	258	4.0 4.0	0.4 0.4	97	-1	0.72 0.72	4 4	1.35	1.33	1.36	1.35	0.13 0.13 0.13 0.13	0.87 0.87 0.88 0.89	Off	4
20:26:59	12127.	256 259	3.6	0.5	97	-1	0.72 0.72 0.72	4 4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.35 1.35	0.13 0.13 0.13 0.13 0.13	0.89 0.89 0.89 0.88 0.89	Off Off	4 4
20:27:00	12097. 12137.	262	3.6 3.6	0.2	93 96	-1 -1	0.81 0.72 0.72	4 4 4	1.35	1.33	1.36	1.35	0.13 0.13 0.13 0.14 0.13	0.90 0.90 0.90 0.90 0.90	Off	4
20:27:01	12147.	256 256	3.6	0.3 0.6	96	-1	0.72 0.72 0.72	4 4 4	1.35 1.35	1.33 1.33	1.36 1.36	1.35 1.35	0.14 0.13 0.14 0.14	0.91 0.92 0.91 0.92	Off Off	4 4
20:27:02	12152. 12152.	261	3.6 3.6	0.6	96 96	-2 -2	0.72 0.72 0.72	4 4 4	1.35	1.33	1.35	1.35	0.14 0.14 0.14 0.14 0.14	0.92 0.92 0.93 0.93 0.94	Off	4
20:27:03	12157.	260 259	3.6	0.5 0.5	96	-1	0.72 0.72 0.63	4 4 4	1.34 1.34	1.33 1.33	1.35 1.35	1.35 1.35	0.14 0.14 0.14 0.14	0.93 0.93 0.94 0.94	Off Off	4 4
20:27:04	12162. 12167.	258	3.6	0.5	96 96	-1	0.72 0.72 0.72	5 4 4	1.34	1.33	1.35	1.35	0.14 0.14 0.14 0.13 0.14	0.93 0.93 0.93 0.93 0.93	Off	4
20:27:05	12167.	244 260	3.6 3.6	0.5 0.5	96	-1 -1	0.72 0.72	4 4	1.34 1.34	1.33 1.32	1.35 1.35	1.35 1.35	0.14 0.14 0.14 0.14	0.93 0.93 0.93 0.93	Off Off	4 4
20:27:06	12172. 12172.	259	3.6	0.2	96	-1	0.72 0.72 0.72	4 4 4	1.34	1.32	1.35	1.35	0.14 0.14 0.14 0.14 0.14	0.93 0.94 0.94 0.95 0.95	Off	4
20:27:07	12177.	264 264	3.6 3.6	0.6 0.5	96 96	-1 -1	0.72 0.72 0.72	4 4 4	1.34 1.34	1.32 1.32	1.35 1.35	1.35 1.35	0.14 0.14 0.14 0.14 0.14	0.96 0.96 0.96 0.96 0.96	Off Off	4 4
20:27:08	12182.	262	3.6	0.5	96	0	0.72 0.72 0.72	4 4 5	1.34	1.32	1.35	1.35	0.14 0.14 0.14 0.14 0.13	0.96 0.96 0.96 0.96 0.96	Off	4
20:27:09	12187. 12192.	264 247	3.6 3.6	0.5 0.5	95 95	0 1	0.72 0.63 0.72	4 4 4	1.34 1.34	1.32 1.32	1.35 1.35	1.35 1.35	0.14 0.14 0.14 0.14 0.14	0.96 0.97 0.97 0.97 0.97	Off Off	4 4
20:27:10	12192.	270	3.6	0.5	95	1	0.72 0.72 0.72	4 4 4	1.34	1.32	1.35	1.35	0.14 0.14 0.14 0.14	0.97 0.97 0.97 0.97	Off	4
20:27:11	12197. 12202.	270 266	3.6 3.6	0.5 0.4	95 95	1 1	0.72 0.72 0.72	4 4 4	1.34 1.34	1.32 1.32	1.35 1.35	1.35 1.35	0.14 0.14 0.14 0.14 0.14	0.97 0.97 0.97 0.97 0.97	Off Off	4 4
20:27:12	12207.	266	3.6	0.4	95	1	0.72 0.72	4 4	1.34	1.32	1.35	1.35	0.14 0.14	0.98 0.97	Off	4
20:27:13	12212. 12217.	263 272	3.6 3.6	0.4 0.2	96 96	1 1	0.72 0.72 0.72 0.72	4 4 4 5	1.34 1.34	1.32 1.32	1.35 1.35	1.34 1.34	0.13 0.13 0.13 0.13 0.13	0.97 0.97 0.96 0.96 0.96	Off Off	4 4
20:27:14	12222.	245	3.6	0.2	96	1	0.72	4	1.34	1.32	1.35	1.34	0.13 0.13	0.95 0.95	Off	4
20:27:15	12227. 12237.	267 267	3.6 3.6	0.3 0.1	96 96	1 1	0.72 0.72 0.72 0.72	4 4 4 4	1.34 1.34	1.32 1.32	1.34 1.35	1.34 1.34	0.13 0.13 0.13 0.13 0.13	0.95 0.95 0.96 0.95 0.95	Off Off	4 4
20:27:16	12242.	270	3.6	0.3	96	1	0.72 0.72	4 4	1.34	1.32	1.34	1.34	0.13 0.13 0.13	0.94 0.95 0.95	Off	4
20:27:17	12247. 12252.	270 270	3.6 3.6	0.4 0.2	96 96	1 1	0.72 0.72 0.72 0.72	3 3 3 4	1.34 1.34	1.32 1.32	1.34 1.34	1.34 1.34	0.13 0.13 0.13 0.13	0.95 0.95 0.95 0.95	Off Off	4 4
20:27:18	12257.	270	2.9	0.2	96	1	0.72 0.72	3 4	1.34	1.32	1.34	1.34	0.13 0.13 0.13 0.13	0.95 0.94 0.94 0.93	Off	4
20:27:19	12262. 12267.	253 272	3.2 2.9	0.4 0.3	96 96	1 0	0.72 0.72 0.63	3 3 3	1.34 1.34	1.32 1.32	1.34 1.34	1.34 1.34	0.13 0.13 0.12	0.91 0.91 0.91	Off Off	4 4
20:27:20	12272.	273	2.9	0.4	96	0	0.63 0.63	3 3	1.34	1.32	1.34	1.34	0.12 0.12 0.12 0.12	0.90 0.90 0.91 0.90	Off	4
20:27:21	12277. 12282.	274 274	2.9 2.9	0.5 0.5	96 96	0 0	0.63 0.72	3 3	1.33 1.34	1.32 1.32	1.34 1.34	1.34 1.34	0.12 0.12 0.12	0.91 0.91 0.92	Off	4 4

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (up/down) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel (g)	VHF	Pitch Trim Stab Pos (degrees)
20:27:22	12282.	274	2.9	0.5	96	1	0.72 0.72	3 3	1.33	1.32	1.34	1.34	0.13 0.12 0.13 0.13 0.13 0.13 0.13	0.93 0.93 0.94 0.95 0.95 0.95 0.95	Off Off	4
20:27:23	12282. 12287.	273	2.9 3.2	0.5 0.4	96	1 3	0.81 0.72 0.72 0.72	3 4 3 4	1.33	1.31	1.34	1.34	0.13 0.13 0.13 0.13 0.13 0.13 0.13	0.96 0.96 0.97 0.97 0.98 0.98 0.98	Off	4
20:27:24	12287.	256 276	3.6	0.5	96	4	0.72 0.72	4 4	1.33	1.31	1.34	1.34 1.34	0.13 0.13 0.13 0.13 0.13 0.13	0.98 0.98 0.98 0.98 0.99 1.00	Off Off	4
20:27:25	12287. 12287.	276	3.6 3.6	0.5 0.4	96	4 4	0.72 0.72 0.54 0.63	4 3 3 4	1.33 1.33	1.31	1.34	1.34	0.13 0.13 0.13 0.13 0.13 0.13 0.13	1.00 1.00 1.00 1.00 1.00 1.00 1.00	Off	4
20:27:26	12297.	276 277	3.6	0.4	96	4	0.63 0.63	4 4	1.33	1.31	1.34 1.34	1.34	0.13 0.13 0.13 0.13 0.13	1.00 1.00 1.00 1.00 1.00	Off Off	4
20:27:27	12297. 12307.	278	4.0 4.0	0.3 0.4	97 97	4 4	0.63 0.63 0.72 0.72	4 4 4 4	1.33	1.31	1.34	1.34	0.13 0.13 0.13 0.13 0.13 0.13 0.13	1.00 1.01 1.01 1.01 1.01 1.01 1.01	Off	4
20:27:28	12312.	278 278	4.0	0.2	97	3	0.72 0.72	3 3	1.33 1.33	1.31	1.34 1.34	1.34	0.13 0.13 0.13 0.13 0.13	1.01 1.01 1.01 1.01 1.00	Off Off	4
20:27:29	12297. 12332.	278	4.0 4.0	0.3 0.2	93 98	2 1	0.72 0.81 0.72 0.81	3 3 3 3	1.33	1.31	1.34	1.34	0.13 0.13 0.13 0.13 0.13 0.13 0.13	0.99 0.99 0.98 0.98 0.99 0.99 0.98	Off	4
20:27:30	12337.	278	4.0	0.2	98	1	0.81	3	1.33	1.31	1.34	1.34	0.13 0.13 0.13 0.13 0.13	0.98 0.98 0.98 0.98 0.98	Off	4
20:27:31	12352. 12357.	279	3.6 3.6	0.2 0.4	98 98	0 0	0.81 0.72 0.72	3 3 3	1.33	1.31	1.34	1.34	0.12 0.12 0.12 0.12 0.12 0.12 0.12	0.96 0.95 0.94 0.94 0.93 0.93 0.93	Off	4
20:27:32	12367.	279 280	3.6	0.3	98	-1	0.72 0.72 0.72	3 3 4	1.33 1.33	1.31	1.34 1.34	1.34	0.12 0.12 0.12 0.12 0.12 0.12 0.12	0.94 0.93 0.92 0.92 0.91 0.91 0.91	Off Off	4
20:27:33	12377. 12362.	280	3.6 3.6	0.4 0.4	98 93	-1 -1	0.72 0.72 0.72	3 3 3	1.33	1.31	1.33	1.34	0.12 0.12 0.12 0.12 0.12 0.12 0.12	0.91 0.91 0.91 0.91 0.91 0.91 0.91	Off	4
20:27:34	12397.	280 281	3.2	0.3	97	-1	0.72 0.72 0.72	3 3 3	1.33 1.33	1.31	1.34 1.34	1.34	0.12 0.11 0.12 0.11 0.11 0.11 0.11	0.91 0.91 0.91 0.91 0.90 0.90 0.90	Off Off	4
20:27:35	12407. 12412.	281	3.2 2.9	0.4 0.4	97 97	-1 -1	0.72 0.72	3 3	1.33	1.31	1.33	1.34	0.12 0.11 0.12 0.11 0.11 0.11 0.11	0.91 0.91 0.91 0.91 0.91 0.91 0.91	Off	4
20:27:36	12417.	281 282	3.2	0.4	97	0	0.81 0.90 0.72 0.72	3 3 3 3	1.33 1.33 1.32	1.31	1.33 1.33	1.34 1.33	0.12 0.12 0.11 0.11 0.11 0.11 0.11	0.91 0.91 0.92 0.91 0.91 0.92 0.92	Off Off	4
20:27:37	12417.	282	2.9	0.3	97	-1	0.72	3	1.32	1.30	1.33	1.33	0.11 0.11 0.11 0.11 0.11 0.11 0.11	0.92 0.92 0.92 0.92 0.92 0.92 0.92	Off	4
20:27:38	12412.	282 283	2.9	0.4	93	-1	0.63 0.63 0.63	3 3 3	1.32 1.32	1.30	1.33 1.33	1.33	0.11 0.11 0.11 0.11 0.11 0.11 0.11	0.93 0.92 0.92 0.92 0.92 0.92 0.93	Off Off	4
20:27:39	12432. 12437.	284	2.9 2.9	0.4 0.5	96 96	-1 -1	0.63 0.63 0.72	3 3 3	1.32	1.30	1.33	1.33	0.11 0.11 0.11 0.11 0.11 0.11 0.11	0.93 0.93 0.93 0.94 0.94 0.94 0.94	Off	4
20:27:40	12442.	284 284	3.2	0.4	96	-1	0.72 0.72 0.72	3 3 3	1.32 1.32	1.30	1.33 1.33	1.33	0.11 0.11 0.12 0.12 0.12 0.12 0.12	0.95 0.95 0.96 0.96 0.97 0.97 0.98	Off Off	4
20:27:41	12442. 12447.	266	3.2 2.9	0.2 0.2	96 96	0 0	0.72 0.72 0.72	3 3 4	1.32	1.30	1.33	1.33	0.12 0.12 0.12 0.12 0.12 0.12 0.12	0.98 0.98 0.98 0.99 0.99 0.99 0.98	Off	4
20:27:42	12452.	283 286	2.9	0.3	96	1	0.72 0.72 0.72	3 4 3	1.32 1.32	1.30	1.32 1.33	1.33	0.12 0.11 0.11 0.11 0.11 0.11 0.11	0.98 0.97 0.97 0.97 0.97 0.97 0.97	Off Off	4
20:27:43	12442. 12462.	286	2.9 2.9	0.4	93 96	1 1	0.63 0.63 0.63	3 3 3	1.32	1.30	1.32	1.33	0.11 0.11 0.11 0.11 0.11 0.11 0.11	0.97 0.97 0.97 0.97 0.97 0.97 0.97	Off	4
20:27:44	12467.	287 288	2.9	0.3 0.3	96	1	0.72 0.63	3 3	1.32 1.32	1.30	1.32 1.33	1.33	0.11 0.11 0.11 0.11 0.11 0.11 0.11	0.97 0.97 0.97 0.97 0.97 0.97 0.97	Off Off	4
20:27:45	12472. 12482.	288	2.9 3.2	0.3	97 97	1 1	0.63 0.63 0.72	3 3 3	1.31	1.30	1.32	1.33	0.11 0.11 0.11 0.11 0.11 0.11 0.11	0.97 0.97 0.98 0.98 0.98 0.98 0.98	Off	4
20:27:46	12487.	288	2.9	0.3	97	1	0.72	3	1.31	1.29	1.32	1.33	0.11 0.11 0.11 0.11 0.11 0.11 0.11	0.97 0.97 0.97 0.97 0.97 0.97 0.97	Off	4

LOCAL TIME (ref. CVR)	HSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
		288		0.2			0.72 0.72	3 3	1.31	1.30	1.32	1.33	0.11 0.11 0.11 0.11 0.11 0.11 0.11	0.97 0.97 0.97 0.97 0.97 0.97 0.98	Off	4
20:27:47	12492. 12487.	289	2.9	0.2	97 92	1	0.72 0.72 0.72	4 3 3	1.31	1.29	1.32	1.32	0.11 0.11 0.11 0.11 0.11 0.11 0.11	0.97 0.97 0.97 0.97 0.97 0.97 0.98	Off	4
20:27:48	12507.	289 290	3.2 3.6	0.3 0.3	97	1	0.72 0.72 0.72	3 3 3	1.31 1.30	1.29 1.29	1.30 1.29	1.32 1.32	0.11 0.11 0.11 0.11 0.11 0.11 0.11	0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off Off	4 4
20:27:49	12512. 12517.	290	3.6	0.4	97	1	0.72 0.72 0.72	3 3 3	1.28	1.28	1.27	1.30	0.11 0.11 0.11 0.11 0.11 0.11 0.11	0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off	4
20:27:50	12527.	290 290	3.6 3.6	0.2 0.3	96 97	0 0	0.72 0.72 0.72	3 3 3	1.27 1.25	1.26 1.25	1.25 1.24	1.28 1.26	0.10 0.10 0.10 0.10 0.10 0.10 0.10	0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off Off	4 4
20:27:51	12537.	291	3.6	0.3	97	0	0.72 0.72 0.72	3 3 3	1.24	1.23	1.23	1.25	0.10 0.10 0.10 0.10 0.10 0.10 0.10	0.96 0.96 0.96 0.96 0.96 0.96 0.96	Off	4
20:27:52	12547. 12552.	292 290	3.2 3.6	0.3 0.3	97 94	0 0	0.72 0.72 0.72	3 3 3	1.23 1.22	1.22 1.22	1.22 1.21	1.24 1.23	0.10 0.09 0.09 0.09 0.09 0.09 0.09	0.96 0.96 0.96 0.96 0.96 0.96 0.96	Off Off	4 4
20:27:53	12562.	291	3.6	0.4	97	0	0.72 0.72 0.72	3 3 3	1.22	1.21	1.20	1.22	0.09 0.09 0.09 0.09 0.09 0.09 0.09	0.96 0.96 0.96 0.96 0.96 0.96 0.96	Off	4
20:27:54	12572. 12582.	292 292	3.6 3.6	0.2 0.5	97 97	0 0	0.72 0.72 0.72	3 3 3	1.21 1.20	1.20 1.20	1.20 1.19	1.21 1.21	0.09 0.09 0.09 0.09 0.09 0.09 0.09	0.96 0.96 0.96 0.96 0.96 0.96 0.96	Off Off	4 4
20:27:55	12592.	292	3.6	0.2	97	0	0.72 0.72 0.72	3 3 3	1.20	1.19	1.19	1.20	0.09 0.09 0.09 0.09 0.09 0.09 0.09	0.95 0.95 0.95 0.95 0.95 0.95 0.95	Off	3
20:27:56	12597. 12607.	290 292	3.6 3.2	0.2 0.0	97 97	0 0	0.72 0.72 0.72	3 3 4	1.19 1.19	1.19 1.19	1.19 1.18	1.20 1.20	0.09 0.09 0.09 0.09 0.09 0.09 0.09	0.95 0.95 0.95 0.95 0.95 0.95 0.95	Off Off	3 3
20:27:57	12612.	275	3.6	0.2	97	0	0.72 0.72 0.72	3 3 3	1.19	1.18	1.18	1.20	0.09 0.09 0.08 0.08 0.08 0.08 0.08	0.95 0.95 0.94 0.94 0.94 0.94 0.94	Off	3
20:27:58	12622. 12632.	292 292	3.2 3.2	0.3 0.4	97 97	0 -1	0.72 0.72 0.72	3 3 3	1.19 1.18	1.18 1.18	1.18 1.18	1.20 1.20	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.92 0.92 0.92 0.92 0.92 0.92 0.91	Off Off	3 3
20:27:59	12642.	292	2.9	0.4	97	-1	0.72 0.72 0.72	3 3 3	1.18	1.18	1.18	1.20	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.91 0.91 0.91 0.92 0.92 0.93 0.93	Off	3
20:28:00	12647. 12652.	292 292	2.9 3.2	0.5 0.4	96 96	-1 -1	0.72 0.72 0.72	3 3 3	1.18 1.18	1.18 1.18	1.18 1.18	1.20 1.20	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.93 0.93 0.93 0.94 0.94 0.94 0.94	Off Off	3 3
20:28:01	12657.	292	2.9	0.3	96	0	0.72 0.72 0.72	4 3 3	1.18	1.17	1.18	1.19	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.94 0.95 0.95 0.96 0.96 0.96 0.96	Off	3
20:28:02	12667. 12677.	276 293	3.2 2.9	0.3 0.5	96 97	0 0	0.63 0.72 0.72	3 3 3	1.18	1.17	1.18	1.19	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.95 0.95 0.94 0.94 0.94 0.94 0.94	Off	3
20:28:03	12682.	293	2.9	0.5	97	0	0.72 0.72 0.72	3 3 3	1.18	1.17	1.18	1.19	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.95 0.95 0.96 0.96 0.96 0.97 0.97	Off	3
20:28:04	12687. 12692.	293 293	2.9 2.9	0.3 0.3	97 97	0 0	0.72 0.72 0.72	3 3 3	1.17 1.17	1.17 1.17	1.18 1.17	1.19 1.19	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.97 0.97 0.96 0.96 0.96 0.96 0.96	Off	3
20:28:05	12697.	293	2.9	0.4	97	0	0.72 0.72 0.72	3 3 3	1.17	1.17	1.17	1.19	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.94 0.94 0.94 0.94 0.94 0.94 0.94	Off Off	3
20:28:06	12707. 12712.	293	2.9 2.9	0.2 0.4	96 96	0 0	0.72 0.72 0.72	3 4 3	1.17 1.17	1.17 1.16	1.17 1.17	1.19	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.94 0.94 0.94 0.94 0.94 0.94 0.94	Off	3
20:28:07	12717.	276 293	2.9	0.3	96	0	0.72 0.63 0.72	3 3 3	1.17	1.16	1.17	1.18 1.18	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.94 0.94 0.94 0.94 0.94 0.94 0.95	Off Off	3
20:28:08	12727. 12732.	294	2.9 2.9	0.5 0.5	96 96	0 0	0.63 0.63 0.72	3 3 3	1.17 1.17	1.16 1.16	1.17 1.17	1.18	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.95 0.95 0.96 0.96 0.96 0.96 0.96	Off	3
20:28:09	12737.	294 294	2.9	0.4	97	0	0.72 0.72 0.72	3 3 3	1.17	1.31	1.17	1.18	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.97 0.97 0.97 0.97 0.97 0.97 0.97	Off	3
20:28:10	12742. 12747.	294	2.9 2.9	0.3 0.3	97 96	0 0	0.72 0.72 0.72	3 3 4	1.17	1.16	1.17	1.18	0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.97 0.97 0.96 0.96 0.95 0.95 0.95	Off	3 4

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
20:28:11	12757.	294 277	2.9	0.3	97	0	0.72 0.72	3 3	1.17 1.17	1.16 1.16	1.17 1.17	1.18 1.18	0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.95 0.94 0.94 0.94 0.94 0.94 0.95 0.95 0.95 0.95	Off Off	3
20:28:12	12762. 12767.	294	2.9 2.9	0.3 0.3	96 96	0 0	0.72 0.72 0.72 0.72	3 3 3 3	1.17	1.16	1.16	1.17	0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.94 0.94 0.94 0.94 0.95 0.95 0.95 0.95 0.95 0.95	Off	3 3
20:28:13	12777.	294 294	2.9	0.2	96	0	0.72 0.72	3 3	1.17 1.16	1.15 1.15	1.16 1.16	1.17 1.17	0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.95 0.95 0.96 0.96 0.95 0.95 0.95 0.95 0.95 0.95	Off Off	3
20:28:14	12782. 12787.	294	2.9 2.9	0.2 0.2	96 96	0 0	0.72 0.72 0.72	3 3 3	1.16	1.15	1.16	1.17	0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95	Off	3 3
20:28:15	12792.	294 294	2.9	0.3	96	0	0.72 0.72 0.63	3 3 4	1.16 1.16	1.15 1.14	1.15 1.14	1.17 1.16	0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08 0.08	0.94 0.94 0.94 0.94 0.95 0.94 0.94 0.94 0.94 0.94	Off Off	3
20:28:16	12797. 12802.	280	2.9 2.9	0.1 0.3	96 96	0 0	0.72 0.72 0.72	3 3 3	1.15	1.14	1.14	1.15	0.08 0.08 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	Off	3 3
20:28:17	12807.	294 294	2.9	0.1	96	0	0.72 0.72 0.72	3 3 3	1.15 1.14	1.13 1.11	1.13 1.12	1.14 1.13	0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.93	Off Off	3
20:28:18	12812. 12817.	294	2.5 2.5	0.3 0.2	97 97	0 0	0.72 0.72 0.72	3 3 3	1.14	1.10	1.12	1.13	0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07	0.93 0.93 0.93 0.94 0.94 0.94 0.94 0.94 0.94 0.94	Off	3 3
20:28:19	12822.	294 294	2.5	0.2	97	0	0.72 0.81 0.72	3 3 3	1.13 1.13	1.10 1.09	1.12 1.12	1.13 1.13	0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.93	Off Off	3
20:28:20	12842. 12827.	294	2.2 2.2	0.1 0.4	93 96	0 0	0.72 0.72 0.72	3 4 3	1.13	1.09	1.12	1.12	0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07	0.94 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95	Key	3
20:28:21	12847.	294 294	2.2	0.4	92	0	0.72 0.72 0.72	3 3 3	1.13 1.13	1.09 1.09	1.12 1.12	1.12 1.12	0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07	0.96 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95	Key Key	4 4
20:28:22	12832. 12837.	294	2.2 2.2	0.5 0.4	96 96	-1 -1	0.63 0.72 0.63	3 3 3	1.13	1.09	1.12	1.12	0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07	0.97 0.97 0.97 0.98 0.98 0.98 0.98 0.98 0.98 0.98	Key	4
20:28:23	12842.	294 294	2.2	0.3	96	-1	0.63 0.72 0.72	3 3 3	1.12 1.12	1.09 1.09	1.12 1.11	1.12 1.12	0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07	0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98	Key Key	4 4
20:28:24	12847. 12877.	294	2.2 2.2	0.4 0.5	96 92	-1 -1	0.72 0.72 0.72	3 3 3	1.12	1.08	1.11	1.12	0.07 0.07 0.06 0.07 0.07 0.07 0.07 0.07 0.07 0.07	0.98 0.97 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96	Key	4
20:28:25	12862.	294	2.5	0.4	96	-2	0.72 0.72 0.72	3 3 3	1.12 1.12	1.08 1.08	1.10 1.10	1.11 1.11	0.07 0.07 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06	0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Key Off	4 4
20:28:26	12887. 12872.	294	2.5 2.5	0.5	91 96	-3 -4	0.81 0.72 0.72	3 3 3	1.12	1.08	1.10	1.11	0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.06	0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off	4
20:28:27	12877.	294 294	2.5	0.5 0.5	96	-5	0.72 0.72 0.72	3 3 3	1.12 1.12	1.08 1.08	1.10 1.10	1.11 1.11	0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07	0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98	Off Off	4 4
20:28:28	12882. 12887.	294	2.9 2.9	0.4	96 96	-6 -7	0.72 0.72 0.72	3 3 3	1.12	1.08	1.10	1.11	0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07	0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98	Key	4
20:28:29	12897.	292 288	2.9	0.5 0.4	95	-8	0.72 0.81 0.81	3 3 3	1.12 1.12	1.08 1.08	1.10 1.10	1.10 1.10	0.06 0.07 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06	0.98 0.98 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Key Key	4 4
20:28:30	12902. 12937.	294	2.9	0.4	95 90	-9	0.72 0.72 0.72	3 3 3	1.12	1.08	1.10	1.10	0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06	0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Key	4
20:28:31	12917.	290 294	2.9 2.9	0.5 0.5	94	-10 -11	0.72 0.72 0.72	3 3 3	1.11 1.12	1.08 1.08	1.10 1.10	1.10 1.10	0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06	0.97 0.96 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Key Key	4 4
20:28:32	12922. 12927.	294	2.9	0.4	94	-12	0.72 0.72 0.72	3 3 3	1.11	1.07	1.09	1.10	0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06	0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	Key	4
20:28:33	12937.	294 294	2.9 2.9	0.4 0.4	94 93	-13 -15	0.72 0.72 0.72	3 3 3	1.11 1.11	1.07 1.07	1.09 1.09	1.10 1.10	0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06	0.98 0.98 0.97 0.96 0.96 0.96 0.96 0.96 0.96 0.95	Key Key	4 4
20:28:34	12937.	283	2.9	0.3	93	-16	0.72 0.72 0.72	3 3 4	1.11	1.07	1.09	1.09	0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06	0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96	Key	4
20:28:35	12947. 12982.	294 292	2.9 2.9	0.3 0.4	92 88	-17 -18	0.72 0.72 0.72	3 3 3	1.10 1.09	1.06 1.05	1.07 1.05	1.08 1.07	0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06	0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.95	Key Key	4 4

(25)

LOCAL TIME (ref. CVR)	HSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
20:28:36	12957.	294	2.9	0.4	91	-18	0.72 0.72 0.72	3 3 3	1.08	1.05	1.05	1.05	0.06 0.06 0.05 0.05 0.05	0.95 0.94 0.94 0.95 0.95	Key	4
20:28:37	12962. 12967.	293 294	2.9 2.9	0.5 0.5	91 90	-19 -19	0.72 0.72 0.72	3 3 3	1.08 1.08	1.04 1.04	1.04 1.04	1.04 1.03	0.05 0.05 0.05 0.06	0.97 0.98 0.98 0.98	Key Key	4 4
20:28:38	12967.	294	2.9	0.4	90	-18	0.72 0.63	3 3	1.08	1.04	1.04	1.03	0.06 0.06 0.06 0.06 0.06	0.99 1.00 1.00 1.01 1.01	Key	4
20:28:39	12967. 12967.	290 294	2.9 2.9	0.5 0.5	89 89	-18 -17	0.72 0.72	3 3	1.07 1.07	1.04 1.04	1.04 1.03	1.03 1.03	0.06 0.06 0.06 0.06	1.01 1.01 1.01 1.01	Key Key	4 4
20:28:40	12992.	290	2.9	0.5	85	-18	0.72 0.63	3 3	1.07	1.04	1.03	1.03	0.06 0.06 0.06 0.06 0.06	1.01 1.01 1.02 1.02 1.03	Key	4
20:28:41	12972. 12977.	293 293	3.2 3.2	0.5 0.5	87 87	-17 -17	0.63 0.63 0.63	3 3 3	1.07 1.07	1.03 1.04	1.03 1.03	1.03 1.03	0.06 0.06 0.06 0.06 0.06	1.05 1.06 1.06 1.07 1.07	Key Key	4 4
20:28:42	12977.	292	3.6	0.5	86	-17	0.63 0.63	3 3	1.07	1.03	1.03	1.03	0.06 0.06 0.06 0.06 0.06	1.08 1.08 1.08 1.08 1.08	Key	4
20:28:43	12982. 12987.	292 302	3.6 3.6	0.4 0.4	85 85	-17 -16	0.63 0.63 0.72 0.63	3 3 4 3	1.07 1.07	1.04 1.03	1.03 1.03	1.03 1.03	0.06 0.06 0.06 0.06 0.06	1.08 1.08 1.08 1.07 1.07	Key Key	4 4
20:28:44	12997.	292	3.6	0.2	84	-15	0.72 0.72	4 3	1.07	1.04	1.03	1.03	0.06 0.06 0.06 0.06 0.06	1.06 1.05 1.05 1.04 1.04	Off	4
20:28:45	13007. 13012.	284 288	3.6 3.6	0.4 0.0	84 83	-16 -16	0.72 0.72 0.72 0.72	3 3 3 3	1.07 1.07	1.03 1.03	1.03 1.03	1.03 1.03	0.06 0.06 0.06 0.06 0.06	1.03 1.03 1.02 1.02 1.00	Off Off	4 4
20:28:46	13022.	286	3.6	0.1	83	-16	0.72 0.72	3 3	1.07	1.03	1.03	1.03	0.06 0.06 0.05 0.05	0.99 0.99 0.98 0.98	Off	4
20:28:47	13037. 13042.	290 288	3.6 3.2	0.1 0.2	82 82	-16 -15	0.63 0.63 0.63 0.63	3 3 3 3	1.06 1.04	1.02 1.01	1.02 1.01	1.02 1.01	0.05 0.05 0.05 0.05 0.05	0.98 0.97 0.97 0.97 0.97	Off	4 4
20:28:48	13052.	298	3.6	0.2	81	-13	0.54 0.63	3 3	1.03	1.01	1.01	1.00	0.05 0.05 0.05 0.05 0.05	0.97 0.97 0.98 0.98 0.98	Key Off	4
20:28:49	13062. 13067.	288 288	3.2 2.9	0.0 0.0	81 81	-11 -10	0.18 0.63 0.63 0.63	4 3 3 3	1.01 1.00	1.00 1.00	1.01 1.01	1.00 1.00	0.04 0.04 0.04 0.04 0.04	0.98 0.98 0.97 0.96 0.95	Off	4 4
20:28:50	13072.	270 286	2.9	0.1	81	-9	0.54 0.54	3 3	1.00	1.00	1.00	1.00	0.03 0.03 0.03 0.03 0.03	0.93 0.93 0.92 0.92 0.92	Off Off	4
20:28:51	13082. 13107.	283	2.9 2.9	0.0 0.3	80 78	-8 -8	0.54 0.54 0.54 0.54	3 3 3 3	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0.02 0.02 0.02 0.02 0.02	0.92 0.92 0.92 0.90 0.89	Off	4 4
20:28:52	13127.	282 276	2.5	0.2	77	-7	0.54 0.54	3 3	1.00	1.00	1.00 1.00	1.00 1.00	0.02 0.02 0.02 0.02 0.02	0.88 0.88 0.87 0.88 0.88	Off Off	4
20:28:53	13102. 13107.	295	2.5 2.2	0.0 0.0	80 80	-6 -5	0.54 0.72 0.72	3 3 3	1.00	1.00	1.01	1.00	0.01 0.01 0.01 0.01 0.01	0.88 0.89 0.89 0.89 0.89	Off	4 4
20:28:54	13112.	294 266	2.2	0.0	80	-4	0.72 0.81	3 3	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0.01 0.01 0.01 0.01 0.01	0.88 0.87 0.85 0.84 0.83	Off Off	4
20:28:55	13117. 13117.	283	1.8 1.4	0.0 0.0	80 80	-3 -2	0.72 0.72	3 3	1.00	1.00	1.00	1.00	0.01 0.01 0.01 0.01 0.01	0.83 0.83 0.83 0.83 0.83	Off	4 4
20:28:56	13117.	284 280	1.1	0.0	80	-1	0.72 0.72	3 3	1.00 1.00	1.01 1.00	1.00 1.00	1.00 1.00	0.01 0.01 0.01 0.01 0.01	0.83 0.83 0.83 0.83 0.83	Off Off	4
20:28:57	13122. 13132.	278	0.7 0.7	0.1 0.2	78 77	-1 0	0.72 0.72	3 3	1.00	1.00	1.00	1.00	0.01 0.01 0.01 0.01 0.01	0.83 0.83 0.83 0.83 0.83	Off	4 4
20:28:58	13102.	292 293	0.7	0.2	80	0	0.72 0.72 0.72	93 3 4	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0.01 0.01 0.01 0.01 0.01	0.84 0.84 0.85 0.86 0.86	Off Off	4
20:28:59	13092. 13082.	269	0.7 0.4	0.4 0.5	80 80	0 1	0.72 0.72 0.72	3 3 3	1.00	1.00	1.00	1.00	0.01 0.01 0.01 0.01 0.01	0.87 0.88 0.88 0.89 0.89	Off	4 4
20:29:00	13072.	286 286	0.4	0.6	80	1	0.72 0.72 0.72	3 3 3	1.00 1.00	1.01 1.00	1.00 1.00	1.00 1.00	0.01 0.01 0.01 0.01 0.01	0.90 0.90 0.90 0.91 0.91	Off Off	4

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Pos (degrees)
20:29:01	13057. 13042.	286	0.4 0.4	0.7 0.9	80 80	1 1	0.72 0.72 0.72	3 3 3	1.00	1.00	1.00	1.00	0.01 0.01 0.01 0.02 0.02 0.02	0.92 0.93 0.94 0.95 0.95 0.97	Off	4 4 4
20:29:02	13032.	286 286	0.7	1.1	80	1	0.72 0.63	3 3	1.00 1.00	1.01 1.00	1.00 1.00	1.00 1.00	0.02 0.02 0.02	0.97 0.97 0.97	Off Off	4
20:29:03	13017. 13007.	285	0.7 1.1	1.0 1.0	80 80	1 1	0.72 0.72 0.72	4 4 4	1.00	1.01	1.00	1.00	0.02 0.02 0.03 0.02 0.03	0.98 0.99 1.00 1.01 1.01 1.02	Off	4
20:29:04	12997.	274 284	1.4	0.9	80	1	0.72 0.72 0.72	4 4 4	1.00	1.00	1.00	1.00	0.03 0.03 0.03	1.01 1.01 1.02	Off	4 4
20:29:05	12987. 12977.	284	1.4 2.2	1.0 0.9	80 80	1 0	0.72 0.72 0.72	4 4 4	1.00	1.00	1.00	1.00	0.03 0.03 0.03 0.03	1.03 1.03 1.04 1.05	Off	4
20:29:06	12967.	284 282	2.5	0.7	80	0	0.81 0.81 0.81	4 4 4	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0.03 0.04 0.04 0.04	1.08 1.09 1.11 1.11	Off Off	4 4
20:29:07	12962. 12957.	278	2.9 3.2	0.7 0.7	80 80	0 0	0.72 0.72 0.72	4 4 4	1.00	1.00	1.01	1.00	0.04 0.04 0.04	1.10 1.09 1.09	Off	4
20:29:08	12952.	282 281	3.6	0.3	80	0	0.72 0.72 0.72	5 4 4	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0.04 0.04 0.04 0.03	1.09 1.09 1.08 1.07	Off Off	4 4
20:29:09	12987. 12957.	280	3.6 3.6	0.2	76 80	0 0	0.72 0.72 0.72	4 4 4	1.00	1.00	1.00	1.00	0.03 0.03 0.03	1.06 1.04 1.03	Off	4
20:29:10	12962.	280 280	3.6	0.3 0.2	80	0	0.72 0.72 0.72	4 4 3	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0.03 0.03 0.03 0.03	1.02 1.01 1.00 0.99	Off Off	4 4
20:29:11	12967. 12972.	280	3.6 3.6	0.2	80	0	0.72 0.72 0.72	4 3 3	1.00	1.00	1.00	1.00	0.03 0.03 0.03	0.98 0.98 0.98	Off	4
20:29:12	12977.	285 274	3.2	0.2 0.1	80	1	0.72 0.72 0.72	3 3 3	1.00 1.00	1.01 1.00	1.00 1.00	1.00 1.00	0.02 0.02 0.02 0.02	0.97 0.97 0.96 0.95	Off	4 4
20:29:13	12982. 13017.	278	3.2	0.0	80 76	0	0.72 0.72 0.72	3 3 3	1.00	1.00	1.00	1.00	0.02 0.02 0.02 0.02	0.92 0.91 0.90 0.89	Off	4
20:29:14	12987.	277 278	2.9 2.5	0.1 0.2	80	0 0	0.72 0.72 0.72	3 3 3	1.00 1.00	1.01 1.01	1.00 1.00	1.00 1.00	0.02 0.02 0.02 0.02	0.88 0.88 0.88 0.87	Off Off	4 4
20:29:15	12992. 12992.	278	2.5	0.3	80	-1	0.72 0.72 0.72	3 3 3	1.00	1.00	1.00	1.00	0.02 0.02 0.02 0.02	0.87 0.88 0.88 0.88	Off	4
20:29:16	12997.	278 272	2.5 2.2	0.2 0.2	80 80	-1 0	0.72 0.72 0.81	3 3 3	1.00 1.00	1.01 1.00	1.00 1.00	1.00 1.00	0.02 0.02 0.02 0.02	0.89 0.89 0.89 0.89	Off Off	4 4
20:29:17	12997.	284	2.2	0.2	80	0	0.72 0.72 0.72	4 3 3	1.00	1.00	1.00	1.00	0.02 0.02 0.02 0.02	0.88 0.87 0.89 0.89	Off	4
20:29:18	12992. 13022.	278 275	1.8 1.8	0.3 0.3	80 76	0 0	0.72 0.72 0.72	3 3 3	1.00 1.00	1.00 1.01	1.00 1.00	1.00 1.00	0.02 0.02 0.02 0.02	0.89 0.89 0.90 0.90	Off Off	4 4
20:29:19	12987.	278	1.4	0.3	80	0	0.63 0.63 0.63	3 3 3	1.00	1.01	1.00	1.00	0.02 0.03 0.03 0.03	0.90 0.91 0.91 0.91	Off	4
20:29:20	12982. 12952.	284 270	1.4 1.1	0.3 0.3	80 78	1 0	0.63 0.63 0.72	3 3 3	1.00	1.00 1.01	1.00 1.00	1.00 1.00	0.03 0.03 0.03 0.03	0.90 0.90 0.89 0.89	Off Off	4 4
20:29:21	12982.	262	0.7	0.3	79	0	0.63 0.63	3 3	1.00	1.00	1.00	1.00	0.03 0.03 0.03 0.03	0.89 0.89 0.88 0.88	Off	4
20:29:22	12962. 12957.	275 276	0.7 0.7	0.5 0.6	80 80	0 0	0.63 0.72 0.72 0.63	4 3 4 3	1.00 1.00	1.01 1.00	1.00 1.00	1.00 1.00	0.03 0.03 0.03 0.03	0.89 0.89 0.90 0.91	Off Off	4 4
20:29:23	12977.	284	0.7	0.5	76	-1	0.72 0.72	3 3	1.00	1.00	1.00	1.00	0.03 0.03 0.03 0.03	0.92 0.93 0.93 0.93	Off	4
20:29:24	12937. 12927.	276 274	0.7 0.7	0.6 0.8	80 80	-1 -1	0.72 0.72 0.72	3 4 3	1.00 1.00	1.01 1.00	1.00 1.00	1.00 1.00	0.03 0.04 0.04 0.04	0.94 0.94 0.94 0.95	Off Off	4 4
20:29:25	12917.	280	0.7	0.9	80	-1	0.72 0.72	3 3	1.00	1.00	1.00	1.00	0.04 0.04	0.96 0.97	Off	4

LOCAL TIME (ref. CVR)	RSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Pos (degrees)
20:29:26	12917. 12897.	260 286	0.7 1.1	0.9 0.7	78 80	-1 -2	0.72 0.72 0.72 0.63	3 3 4 4	1.00 1.01	1.01 1.00	1.01 1.01	1.00 1.00	0.04 0.04 0.05 0.05 0.05 0.05 0.05 0.05	0.98 0.98 0.99 1.00 1.01 1.01 1.01	Off Off	4 4
20:29:27	12887.	279	1.1	0.8	80	-1	0.72 0.72	4 4	1.01	1.01	1.01	1.01	0.05 0.05	0.99 0.98	Off	4
20:29:28	12907. 12877.	277 277	1.1 1.1	1.0 1.1	76 80	-1 -1	0.72 0.72 0.72 0.72	3 3 3 4	1.01 1.02	1.00 1.00	1.01 1.01	1.01 1.01	0.05 0.05 0.05 0.05 0.05 0.05	0.97 0.97 0.97 0.97 0.97 0.97	Off Off	4 4
20:29:29	12867.	276	1.1	1.0	80	-1	0.72 0.63	3 3	1.02	1.00	1.01	1.01	0.05 0.05 0.05	0.98 0.98 0.98	Off	4
20:29:30	12862. 12852.	280 282	1.1 1.4	1.1 1.2	80 80	-1 -1	0.72 0.63 0.63 0.63	4 3 3 4	1.03 1.03	1.00 1.00	1.01 1.01	1.02 1.02	0.05 0.05 0.05 0.05	0.98 0.98 0.98 0.98	Off	4 4
20:29:31	12847.	280	1.4	1.2	80	0	0.63 0.63	4 4	1.03	1.00	1.01	1.02	0.05 0.06 0.06 0.06	0.99 1.01 1.02 1.04	Off Off	4
20:29:32	12837. 12832.	284	1.8 2.2	1.0 0.7	80 80	0 0	0.63 0.63 0.72	4 4 4	1.03 1.05	1.00 1.01	1.01 1.03	1.03	0.06 0.06 0.06	1.05 1.05 1.05	Off	4 4
20:29:33	12832.	265 284	2.2	0.4	80	0	0.72 0.72	3 3	1.06	1.03	1.04	1.04 1.06	0.06 0.06 0.06 0.06	1.05 1.04 1.03 1.02	Off Off	4
20:29:34	12827. 12827.	284	2.2 2.2	0.7 0.9	80 80	1 2	0.72 0.54	3 3	1.08 1.08	1.04 1.05	1.05 1.07	1.07	0.06 0.06 0.06	0.98 0.98 0.97	Off	4 4
20:29:35	12827.	284 285	2.2	0.9	81	3	0.63 0.63 0.54 0.63	3 3 3	1.09	1.05	1.05 1.06	1.07 1.08	0.06 0.06 0.06 0.07	0.97 0.97 0.98 0.98	Off Off	4
20:29:36	12827. 12827.	292	2.5 2.2	0.5 0.4	81 81	3 3	0.63 0.72 0.72	4 3 4	1.10	1.05	1.06	1.08	0.07 0.07 0.07	1.01 1.01 1.00	Off	4 4
20:29:37	12827.	292 264	2.5	0.4	81	2	0.72 0.72	3 3	1.11 1.11	1.06 1.06	1.06 1.06	1.08 1.09	0.07 0.07 0.07 0.07	0.98 0.97 0.96 0.96	Off Off	4
20:29:38	12827. 12832.	282	2.2 2.2	0.4 0.3	81 81	2 1	0.72 0.72 0.72 0.72	3 3 3	1.12	1.06	1.07	1.09	0.07 0.07 0.06 0.06	0.95 0.94 0.94 0.94	Off	4 4
20:29:39	12832.	282 284	2.2	0.2	81	1	0.72 0.72	3 3	1.12 1.12	1.06 1.05	1.07 1.06	1.10 1.11	0.07 0.07 0.07	0.94 0.94 0.95	Off Off	4
20:29:40	12832. 12832.	284	2.2 2.2	0.4 0.3	81 81	1 1	0.72 0.72 0.72	3 3 3	1.12	1.05	1.07	1.11	0.07 0.07 0.07 0.07	0.95 0.96 0.95 0.96	Off	4 4
20:29:41	12832.	287 282	2.2	0.3	81	1	0.72 0.72	4 4	1.12 1.12	1.05 1.05	1.07 1.07	1.11 1.11	0.07 0.06	0.94 0.94	Off Off	4
20:29:42	12832. 12832.	275	2.2 2.2	0.4 0.7	81 81	1 1	0.72 0.72 0.81	3 3 3	1.12	1.05	1.06	1.11	0.07 0.06 0.06 0.06 0.06	0.93 0.93 0.93 0.92 0.92	Off	4 4
20:29:43	12832.	292 280	2.2	0.7	81	1	0.72 0.72	3 3	1.12	1.05	1.07	1.11	0.06 0.07 0.07	0.93 0.93 0.96	Off	4
20:29:44	12827. 12827.	284	2.9 2.9	0.7 0.4	81 81	1 1	0.72 0.72 0.72	3 3 3	1.12	1.05	1.06	1.11	0.07 0.07 0.07 0.07	0.97 0.98 1.00 1.01	Off	4 4
20:29:45	12822.	284 278	3.2	0.4	81	1	0.72 0.72 0.72	4 3 3	1.12 1.12	1.06 1.05	1.07 1.07	1.11 1.11	0.08 0.08 0.08 0.08	1.02 1.01 1.02 1.01	Off Off	4
20:29:46	12822. 12822.	276	3.2 3.2	0.2 0.0	81 81	1 1	0.72 0.63 0.63	3 4 3	1.11	1.05	1.07	1.11	0.08 0.07 0.07	1.00 1.00 1.00	Off	4
20:29:47	12822.	266 282	3.2	0.3	81	0	0.72 0.63 0.63	3 3 3	1.11 1.11	1.05 1.05	1.07 1.06	1.11 1.11	0.07 0.07 0.07 0.07	0.99 0.98 0.98 0.98	Off Off	4 4
20:29:48	12822. 12827.	282	3.2 3.6	0.5 0.7	81 82	-1 -1	0.63 0.72	3 3	1.11	1.05	1.06	1.11	0.07 0.07	0.98 0.98	Off	4
20:29:49	12827.	282 282	4.0	0.7	82	-1	0.72 0.72 0.72	3 3 4	1.11 1.11	1.05 1.06	1.07 1.07	1.11 1.11	0.08 0.08 0.08 0.08	0.99 1.00 1.03 1.04	Off Off	4 4
20:29:50	12832.	279	4.0	0.5	81	-1	0.81	4	1.11	1.05	1.07	1.11	0.08 0.08	1.06 1.06	Off	4

LOCAL TIME (ref. CVR)	MSL ALT. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Magn. Heading (degrees)	Roll Angle (degrees)	Rudder Position (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel. (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
	12837.		4.3	0.5	81	-1	0.72 0.72	4 3					0.08 0.08 0.08	1.06 1.06 1.05		
20:29:51	12842.	288 264	4.3	0.4	81	-1	0.72 0.72 0.72	4 4 4	1.11 1.11	1.05 1.05	1.07 1.07	1.11 1.11	0.08 0.08 0.08 0.08 0.08 0.08	1.04 1.03 1.03 1.02 1.01	Off Off	4 4
20:29:52	12852. 12862.	282	4.0 4.3	0.5	81 81	-1 0	0.72 0.72 0.72	4 4 4	1.11	1.05	1.07	1.11	0.08 0.08 0.08 0.08 0.08	1.01 1.01 1.01 1.01 1.01	Off	4
20:29:53	12872.	281 281	4.3	0.3 0.2	81	0	0.72 0.72 0.72	3 3 3	1.11 1.11	1.06 1.06	1.07 1.07	1.11 1.11	0.08 0.08 0.08 0.08 0.08	1.01 1.00 1.00 1.01 1.00	Off Off	4 4
20:29:54	12882. 12892.	281	4.3 4.0	0.1	81 81	0 0	0.72 0.72 0.72	3 3 3	1.12	1.06	1.07	1.11	0.08 0.08 0.07 0.07 0.07	0.99 0.98 0.98 0.98 0.98	Off	4
20:29:55	12902.	280 278	4.0	0.3 0.2	81	0	0.63 0.54 0.63	3 3 4	1.12 1.12	1.06 1.06	1.07 1.07	1.11 1.11	0.07 0.07 0.07 0.07 0.07	0.96 0.95 0.95 0.95 0.95	Off Off	4 4
20:29:56	12917. 12957.	281	4.0	0.2	81 82	0	0.63 0.54 0.63	3 3 3	1.12	1.06	1.07	1.11	0.07 0.07 0.07 0.07 0.07	0.94 0.94 0.93 0.93 0.92	Off	4
20:29:57	12942.	281 281	3.6 3.6	0.2 0.2	82	0 0	0.72 0.72 0.72	3 3 3	1.12 1.12	1.06 1.06	1.07 1.07	1.11 1.11	0.07 0.07 0.07 0.07 0.07	0.92 0.92 0.92 0.92 0.92	Off Off	4 4
20:29:58	12952. 12962.	282	3.6	0.3	82	1	0.72 0.72 0.72	3 3 3	1.12	1.06	1.07	1.10	0.07 0.06 0.06 0.06 0.06 0.06	0.92 0.91 0.89 0.88 0.88 0.86	Off	4
20:29:59	12972.	282	2.9	0.3	82	1	0.72 0.72 0.72	3 3 3	1.12	1.06	1.07	1.11	0.06 0.06 0.06 0.06 0.06	0.84 0.84 0.84 0.84 0.83	Off	4
20:30:00	12982.	280 279	2.9 2.5	0.0	82	1	0.72 0.72 0.72	3 3 4	1.12	1.06	1.07	1.11	0.06 0.06 0.06 0.06 0.06 0.06	0.84 0.84 0.84 0.84 0.84 0.84	Off	4
20:30:01	12982. 13022.	282 282	2.5 2.2	0.2 0.2	82 78	1 1	0.72 0.63 0.63	3 3 3	1.12 1.12	1.06 1.06	1.07 1.07	1.11 1.11	0.06 0.06 0.06 0.06 0.06 0.06	0.85 0.84 0.84 0.84 0.85 0.85	Off Off	4 4
20:30:02	12987.	283	2.2	0.4	82	1	0.63 0.63 0.63	3 3 3	1.12	1.06	1.07	1.11	0.06 0.06 0.06 0.06 0.06 0.06	0.85 0.85 0.85 0.86 0.86 0.87	Off	4
20:30:03	12992. 12992.	282 283	1.8 1.8	0.5 0.6	82 82	0 0	0.63 0.72 0.72	3 3 3	1.12 1.12	1.06 1.06	1.07 1.07	1.11 1.11	0.06 0.06 0.06 0.06 0.06 0.06	0.87 0.87 0.87 0.88 0.89 0.89	Off Off	4 4
20:30:04	12992.	278	1.8	0.9	82	0	0.72 0.72 0.72	3 3 3	1.12	1.06	1.07	1.11	0.06 0.06 0.06 0.06 0.06 0.07	0.89 0.90 0.92 0.92 0.92 0.93	Off	4
20:30:05	12987. 12987.	279 282	2.2 2.2	0.6 0.8	82 82	0 1	0.81 0.72 0.72 0.72	3 3 3 3	1.12 1.12	1.06 1.06	1.07 1.07	1.11 1.11	0.07 0.07 0.07 0.07 0.07 0.07	0.93 0.93 0.94 0.94 0.95 0.97	Off Off	4 4
20:30:06	13017.	280	2.2	0.7	78	1	0.72 0.72 0.72	3 3 3	1.12	1.06	1.07	1.11	0.07 0.07 0.07 0.07 0.07 0.07	0.97 0.97 0.97 0.97 0.97 0.97	Off	4
20:30:07	12982. 12977.	278 278	2.2 2.2	0.6 0.7	82 82	1 1	0.72 0.72 0.72 0.63	3 3 3 3	1.12 1.12	1.06 1.06	1.07 1.07	1.11 1.11	0.07 0.07 0.07 0.07 0.07 0.07	0.96 0.97 0.96 0.96 0.96 0.96	Off Off	4 4
20:30:08	12972.	282	2.2	0.7	82	1	0.63 0.63	3 3	1.12	1.06	1.07	1.11	0.07 0.07 0.07 0.07 0.07	0.95 0.95 0.95 0.96 0.96	Off	4
20:30:09	12972. 12972.	280 278	2.5 2.5	0.9 0.9	82 82	0 0	0.63 0.63 0.63 0.72	3 3 4 3	1.12 1.12	1.06 1.06	1.07 1.07	1.11 1.11	0.07 0.07 0.07 0.07 0.07 0.07	0.96 0.97 0.97 0.97 0.97 0.97	Off Off	4 4
20:30:10	12967.	282	2.9	0.9	82	0	0.72 0.72	4 3	1.12	1.06	1.07	1.11	0.07 0.07 0.07 0.07 0.07	0.98 0.98 0.98 0.98 0.98	Off	4
20:30:11	12997. 12962.	282 281	2.9 2.9	0.7 0.7	78 82	0 0	0.72 0.72 0.72	3 3 3	1.12 1.12	1.06 1.06	1.07 1.07	1.11 1.11	0.07 0.07 0.07 0.07 0.07	0.98 0.98 0.98 0.98 0.98	Off Off	4 4
20:30:12	12962.	278	2.9	0.9	82	0	0.72 0.72	3 3	1.12	1.06	1.07	1.11	0.07 0.07 0.07 0.07 0.07	0.98 0.97 0.97 0.97 0.97	Off	4
20:30:13	12962. 12957.	283 282	2.9 2.9	0.8 0.9	82 82	0 0	0.72 0.72 0.72	3 3 3	1.12 1.12	1.06 1.06	1.07 1.07	1.11 1.11	0.07 0.07 0.07 0.07 0.07	0.98 0.98 0.98 0.98 0.98	Off	4 4
20:30:14	12962.	280	2.9	0.7	82	0	0.72 0.72 0.63	3 4 3	1.12	1.06	1.07	1.11	0.07 0.07 0.07 0.07 0.07 0.07	0.98 0.98 0.98 0.97 0.97 0.97	Off Off	4
20:30:15	12957.	282	2.9	0.7	82	0	0.72	4	1.12	1.06	1.07	1.11	0.07 0.07 0.07 0.07 0.07	0.97 0.97 0.97 0.97 0.97	Off	4

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
	12987.		2.9	0.7	78	0	0.72 0.72 0.72	3 3 3	1.12	1.06	1.07		0.07 0.07 0.07 0.07 0.07 0.07	0.97 0.97 0.97 0.97 0.97 0.98		4
20:30:16	12962.	278 280	2.9	0.5	82	0	0.72 0.72	3 3	1.12	1.06	1.07	1.11 1.11	0.07 0.07 0.07 0.07 0.07 0.07	0.97 0.97 0.97 0.97 0.97 0.98	Off Off	4
20:30:17	12962. 12962.	278	2.9 3.2	0.8 0.7	82 82	0 0	0.72 0.81 0.72 0.72	3 3 3 93	1.12 1.12	1.06 1.06	1.07 1.07	1.11 1.11	0.07 0.08 0.08 0.08 0.08 0.08	0.98 0.98 0.98 0.99 0.99 0.99	Off	4 4
20:30:18	12962.	282 282	3.2	0.7	82	1	0.72 0.72	3 3	1.12	1.06	1.07 1.07	1.11 1.11	0.08 0.08 0.08 0.08 0.08 0.08	1.00 1.00 1.00 1.00 1.00 1.00	Off Off	4
20:30:19	12962. 12962.	278	3.2 2.9	0.7 0.7	82 82	0 0	0.72 0.63 0.72 0.63	3 4 4 3	1.12	1.06	1.07	1.11	0.08 0.08 0.08 0.08 0.08 0.07	1.00 0.99 0.99 0.99 0.99 0.98	Key	4 4
20:30:20	12967.	281 270	3.2	0.9	82	0	0.72 0.72	3 3	1.12 1.12	1.06 1.06	1.07 1.07	1.11 1.11	0.07 0.07 0.07 0.07 0.07 0.07	0.98 0.98 0.98 0.98 0.98 0.98	Key Key	4
20:30:21	12972. 12977.	455	3.6 3.6	0.9 0.7	82 82	0 0	0.72 0.63 0.63 0.72	3 3 3 3	1.12	1.06	1.07	1.11	0.08 0.08 0.08 0.08 0.08 0.08	0.98 0.99 0.99 0.99 0.99 1.00	Key	4 4
20:30:22	12982.	278 282	3.6	0.7	82	0	0.63 0.63	4 3	1.12 1.12	1.06 1.06	1.07 1.07	1.11 1.11	0.08 0.08 0.08 0.08 0.08 0.08	1.00 0.99 0.99 0.99 0.99 0.99	Key Key	4
20:30:23	12987. 12992.	280	3.6 3.6	0.7 0.6	82 82	0 0	0.72 0.72 0.72	3 3 4	1.12	1.06	1.07	1.11	0.08 0.08 0.08 0.08 0.08 0.08	0.98 0.98 0.98 0.98 0.98 0.98	Key	4 4
20:30:24	13002.	288 278	3.6	0.7	82	0	0.72 0.72 0.72	3 4 3	1.13 1.14	1.07 1.09	1.08 1.09	1.12 1.14	0.08 0.08 0.08 0.08 0.08 0.08	0.98 0.98 0.98 0.98 0.98 0.98	Off Off	4
20:30:25	13012. 13017.	269	3.6 4.0	0.6 0.5	82 82	0 0	0.72 0.72 0.72	3 3 3	1.15	1.10	1.10	1.15	0.08 0.08 0.08 0.08 0.08 0.08	0.98 0.98 0.98 0.98 0.98 0.97	Off	4 4
20:30:26	13027.	277 280	4.0	0.4	82	0	0.72 0.72 0.72	3 3 3	1.17 1.18	1.11 1.12	1.12 1.12	1.17 1.18	0.08 0.08 0.08 0.08 0.09 0.09	0.97 0.97 0.96 0.95 0.94 0.94	Off Off	4
20:30:27	13032. 13042.	280	4.0 4.0	0.8 0.7	82 82	-1 -1	0.63 0.72	3 3	1.18	1.12	1.14	1.18	0.08 0.08 0.09 0.09	0.94 0.94 0.95 0.95	Off	4 4
20:30:28	13047.	280 278	3.6	0.5	82	-1	0.63 0.72 0.72	3 3 4	1.19 1.19	1.12 1.13	1.15 1.16	1.19 1.19	0.09 0.09 0.09 0.09 0.09 0.09	0.95 0.95 0.96 0.97 0.97 0.97	Off Off	4
20:30:29	13052. 13062.	278	3.6 4.0	0.6 0.7	82 82	-1 -1	0.72 0.72 0.72	4 4 3	1.19	1.13	1.16	1.19	0.09 0.09 0.09 0.09 0.09 0.09	0.97 0.97 0.97 0.97 0.97 0.97	Off	4
20:30:30	13072.	262 281	4.0	0.6	82	-2	0.72 0.72 0.72	3 3 3	1.21 1.24	1.15 1.17	1.19 1.21	1.21 1.24	0.09 0.09 0.10 0.10 0.10 0.10	0.97 0.97 0.97 0.97 0.97 0.98	Off Off	4 4
20:30:31	13077. 13087.	280	4.0 4.0	0.9 0.9	82 82	-2 -2	0.72 0.72 0.72	3 3 3	1.25	1.18	1.22	1.25	0.10 0.10 0.10 0.10 0.11 0.11	0.98 0.98 0.98 0.98 0.98 0.98	Off	4
20:30:32	13092.	280 280	4.3	0.7	82	-2	0.72 0.63 0.72	3 3 3	1.26 1.27	1.20 1.23	1.23 1.24	1.26 1.28	0.11 0.11 0.11 0.11 0.11 0.11	0.99 0.99 0.99 0.99 1.00 1.00	Off Off	4 4
20:30:33	13102. 13112.	277	4.3 4.3	0.7 0.7	82 82	-2 -2	0.63 0.72 0.72	3 4 3	1.28	1.24	1.25	1.29	0.11 0.11 0.11 0.11 0.11 0.11	1.00 1.00 1.00 1.00 1.00 1.00	Off	4
20:30:34	13127.	286 260	4.3	0.7	82	-2	0.72 0.72 0.72	4 3 3	1.29 1.29	1.24 1.25	1.25 1.25	1.30 1.31	0.11 0.11 0.11 0.11 0.11 0.11	0.99 0.99 0.99 0.99 0.99 0.99	Off Off	4 4
20:30:35	13137. 13147.	275	4.3 4.7	0.5	81 81	-2 -1	0.72 0.72 0.72	3 3 3	1.29	1.24	1.25	1.32	0.11 0.11 0.11 0.11 0.11 0.11	0.98 0.98 0.98 0.98 0.98 0.98	Off	4
20:30:36	13162.	280 280	4.7	0.7 0.5	81	-1	0.63 0.63	3 3	1.29	1.24	1.25	1.32	0.11 0.11 0.11 0.11 0.11 0.11	0.98 0.98 0.98 0.98 0.98 0.98	Off Off	4 4
20:30:37	13172. 13187.	280	4.7 4.3	0.3	81 81	-1 0	0.63 0.63 0.63	3 3 3	1.29	1.25	1.27	1.32	0.11 0.11 0.11 0.11 0.11 0.11	0.98 0.98 0.98 0.98 0.97 0.96	Off	4
20:30:38	13202.	277 278	4.3	0.2 0.2	81	0	0.54 0.63 0.63	3 4 3	1.29	1.25	1.27	1.32	0.11 0.11 0.11 0.11 0.11 0.11	0.94 0.92 0.91 0.89 0.88 0.87	Off Off	4 4
20:30:39	13217. 13232.	259	4.0	0.1	81 81	0	0.63 0.63 0.72	3 3 3	1.29	1.26	1.28	1.32	0.11 0.11 0.11 0.11 0.10 0.10	0.86 0.86 0.86 0.86 0.86 0.86	Off	4

41

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	TAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel. (g)	Vert. Accel. (g)	VHF	Pitch Trim Pos (degrees)	Stab Pos (degrees)
20:30:40	13242.	278 281	3.6 3.6	0.3 0.3	81	0 0	0.72 0.72 0.72	3 3 3	1.29 1.29	1.27 1.27	1.28 1.28	1.32 1.32	0.10 0.10 0.10 0.10 0.10	0.86 0.86 0.87 0.86 0.86	Off Off	4 3	
20:30:41	13257. 13262.	282	3.6	0.3	81	0	0.63 0.72 0.72	3 3 3	1.29	1.28	1.29	1.32	0.10 0.10 0.10 0.10 0.10	0.85 0.85 0.85 0.84 0.84	Off	3	
20:30:42	13272.	282 282	3.2 2.9	0.2 0.3	81 81	0 0	0.72 0.72 0.72	3 3 3	1.29 1.29	1.29 1.30	1.29 1.30	1.32 1.32	0.10 0.10 0.10 0.10 0.10	0.84 0.84 0.83 0.83 0.84	Off Off	3 3	
20:30:43	13277.	278	2.9	0.3	81	0	0.72 0.63 0.72	3 4 3	1.29	1.30	1.30	1.32	0.10 0.10 0.10 0.10 0.10	0.84 0.84 0.83 0.84 0.85	Off	3	
20:30:44	13282. 13337.	282 283	2.5 2.5	0.3 0.3	81 77	0 0	0.63 0.63 0.72	3 3 3	1.29 1.29	1.30 1.31	1.30 1.30	1.32 1.32	0.10 0.10 0.11 0.10 0.10	0.85 0.86 0.86 0.87 0.87	Off Off	3 3	
20:30:45	13287.	284	2.2	0.2	81	0	0.72 0.63 0.72	3 3 3	1.29	1.31	1.30	1.32	0.11 0.11 0.11 0.11 0.11	0.87 0.87 0.88 0.88 0.88	Off	3	
20:30:46	13292. 13292.	284 284	1.8 1.8	0.2 0.6	81 81	0 0	0.72 0.63 0.72	3 3 3	1.29 1.29	1.31 1.31	1.29 1.30	1.32 1.32	0.11 0.11 0.11 0.11 0.11	0.88 0.88 0.88 0.89 0.90	Off Off	3 3	
20:30:47	13287.	284	1.8	0.5	81	0	0.72 0.63 0.72	3 3 3	1.29	1.31	1.31	1.32	0.11 0.11 0.11 0.11 0.11	0.90 0.92 0.94 0.95 0.95	Off	4	
20:30:48	13287. 13282.	286 286	2.2 2.2	0.7 0.7	81 81	1 1	0.72 0.72 0.72 0.72	3 4 4 3	1.29 1.29	1.31 1.31	1.31 1.31	1.32 1.32	0.11 0.11 0.11 0.11 0.11	0.98 0.98 0.98 0.99 1.00	Off Off	4 4	
20:30:49	13332.	287	2.5	0.7	77	1	0.72 0.72 0.72	3 3 3	1.29	1.31	1.32	1.32	0.12 0.12 0.12 0.12 0.12	1.01 1.02 1.03 1.04 1.04	Off	4	
20:30:50	13277. 13277.	288 288	2.9 2.9	0.7 0.7	81 81	1 1	0.72 0.63 0.72	3 3 3	1.29 1.29	1.30 1.30	1.31 1.31	1.32 1.31	0.12 0.12 0.12 0.12 0.12	1.04 1.04 1.04 1.05 1.05	Off Off	4 4	
20:30:51	13277.	288	3.2	0.5	81	1	0.63 0.63 0.63	3 3 3	1.30	1.30	1.31	1.32	0.12 0.12 0.12 0.12 0.12	1.07 1.08 1.09 1.09 1.09	Off	4	
20:30:52	13277. 13282.	288 297	3.6 4.0	0.7 0.5	81 81	1 1	0.72 0.72 0.72	3 3 3	1.30 1.31	1.30 1.30	1.32 1.32	1.32 1.32	0.12 0.12 0.12 0.12 0.12	1.10 1.10 1.10 1.10 1.10	Off Off	4 4	
20:30:53	13292.	288	4.0	0.5	82	1	0.63 0.72 0.63	4 3 4	1.31	1.30	1.32	1.32	0.12 0.12 0.12 0.12 0.12	1.09 1.09 1.11 1.11 1.11	Off	4	
20:30:54	13357. 13312.	288 290	4.3 4.3	0.4 0.3	78 82	0 1	0.72 0.72 0.72 0.72	4 3 3 3	1.31 1.31	1.30 1.30	1.32 1.32	1.32 1.32	0.12 0.13 0.13 0.12 0.12	1.11 1.11 1.11 1.11 1.11	Off Off	4 4	
20:30:55	13327.	286	4.7	0.3	82	1	0.72 0.72 0.72	4 3 3	1.31	1.30	1.32	1.32	0.12 0.12 0.12 0.12 0.12	1.10 1.10 1.09 1.08 1.08	Off	4	
20:30:56	13342. 13362.	290 296	5.0 5.0	0.2 0.3	82 82	1 1	0.72 0.72 0.72 0.72	3 3 3 3	1.31 1.31	1.30 1.30	1.31 1.31	1.31 1.31	0.12 0.12 0.12 0.12 0.12	1.07 1.06 1.06 1.05 1.05	Off	4 4	
20:30:57	13382.	287	5.0	0.2	82	1	0.72 0.72 0.72	3 3 3	1.32	1.30	1.31	1.31	0.12 0.12 0.12 0.12 0.11	1.04 1.03 1.03 1.02 1.02	Off Off	4	
20:30:58	13402. 13487.	286	5.0 5.0	0.0 0.3	82 77	1 1	0.72 0.72 0.72 0.72	4 3 3 3	1.31 1.31	1.29 1.29	1.31 1.31	1.31	0.11 0.11 0.11 0.11 0.11	1.00 0.99 0.98 0.97 0.97	Off	4 4	
20:30:59	13447.	295 288	5.0	0.0	82	1	0.63 0.63 0.63	3 3 3	1.31	1.29	1.31	1.31	0.11 0.11 0.11 0.11 0.11	0.97 0.97 0.97 0.97 0.97	Off Off	4	
20:31:00	13467. 13492.	286	5.0 5.0	0.2 0.0	82 82	0 0	0.63 0.63 0.63 0.72	3 3 3 3	1.31 1.31	1.29 1.29	1.31	1.30	0.11 0.11 0.11 0.11 0.11	0.96 0.96 0.95 0.95 0.94	Off	4 4	
20:31:01	13512.	288 284	4.7	0.2	82	-1	0.63 0.63 0.63	3 3 3	1.31	1.29	1.31	1.30	0.11 0.11 0.10 0.10 0.10	0.93 0.92 0.92 0.92 0.92	Off Off	4	
20:31:02	13537. 13557.	296	4.7 4.3	0.3 0.0	82 82	0 0	0.72 0.72 0.72 0.72	3 3 4 3	1.31	1.29	1.30	1.29	0.10 0.10 0.10 0.10 0.10	0.92 0.92 0.92 0.92 0.93	Off	4 3	
20:31:03	13637.	289 296	4.7	0.1	78	0	0.72 0.72 0.72	3 3 3	1.31 1.31	1.29 1.29	1.30 1.30	1.29 1.29	0.10 0.10 0.10 0.10 0.10	0.92 0.91 0.90 0.90 0.90	Off Off	3	
20:31:04	13597. 13617.	296	4.3 4.3	0.3 0.2	82 82	0 1	0.72 0.72 0.72 0.63	3 3 3 3	1.31	1.29	1.30	1.30	0.10 0.10 0.10 0.10 0.10	0.89 0.89 0.89 0.89 0.89	Off	3 3	

(41)

TWA Flt. 800, B747-131, Takeoff to End of Data
 Tabular Data No. 1, Created: January 09, 1997, National Transportation Safety Board

42

LOCAL TIME (ref. CVR)	MSL Alt. (FEET)	IAS (KNOTS)	Pitch Angle (degrees)	Elevator Position Right (degrees)	Mag. Heading (degrees)	Roll Angle (degrees)	Rudder Position (upper) (degrees)	Angle of Attack (degrees)	EPR Engine 1 (ratio)	EPR Engine 2 (ratio)	EPR Engine 3 (ratio)	EPR Engine 4 (ratio)	Long. Accel (g)	Vert. Accel. (g)	VHF	Pitch Trim Stab Pos (degrees)
20:31:05	13637.	287 289	4.3	0.3	82	1	0.72 0.63	3 3 3	1.31 1.31	1.29 1.29	1.30 1.29	1.29 1.30	0.10 0.10 0.10 0.10 0.10	0.89 0.89 0.89 0.89 0.90	Off Off	3
20:31:06	13652. 13667.	290	4.3 4.3	0.0 0.4	82 82	1 1	0.63 0.63 0.63	3 3 3	1.31	1.30	1.30	1.29	0.10 0.10 0.10 0.10 0.10	0.90 0.90 0.91 0.91 0.91	Off	3 3
20:31:07	13682.	296 287	4.0	0.4	82	1	0.63 0.63 0.63	3 4 3	1.31 1.31	1.30 1.30	1.30 1.29	1.29 1.29	0.10 0.10 0.10 0.10 0.10	0.92 0.92 0.92 0.92 0.92	Off Off	3
20:31:08	13702. 13717.	280	4.0 4.0	0.4 0.4	82 82	1 1	0.63 0.72 0.63	3 3 3	1.31	1.29	1.29	1.29	0.10 0.10 0.10 0.10 0.10	0.92 0.91 0.91 0.91 0.92	Off	3 3
20:31:09	13732.	288 298	4.0	0.3	82	0	0.63 0.72 0.72	3 3 3	1.31 1.31	1.29 1.29	1.29 1.29	1.29 1.29	0.10 0.10 0.10 0.10 0.10	0.91 0.91 0.91 0.90 0.90	Off Off	3
20:31:10	13747. 13757.	290	3.6 3.6	0.1 0.4	82 82	0 0	0.63 0.72 0.72	3 3 3	1.31	1.29	1.29	1.30	0.10 0.10 0.10 0.10 0.10	0.90 0.90 0.90 0.90 0.90	Off	3 3
20:31:11	13772.	288 298	3.6	0.1	82	0	0.72 0.72 0.72	3 3 3	1.30 1.30	1.29 1.29	1.30 1.29	1.30 1.29	0.10 0.10 0.10 0.10 0.10	0.90 0.90 0.90 0.90 0.90	Off Off	3
20:31:12	13817.	100	0.3 2.2	11.2 -0.2	163 276	144 0	77.76 -36.54 0.72	106 30 3	1.14	2.46	2.36	2.44	0.10 0.18 0.18 0.05	0.90 0.89 0.89 1.02	Key	
20:31:13																

END OF
 FLT. 800
 DATA

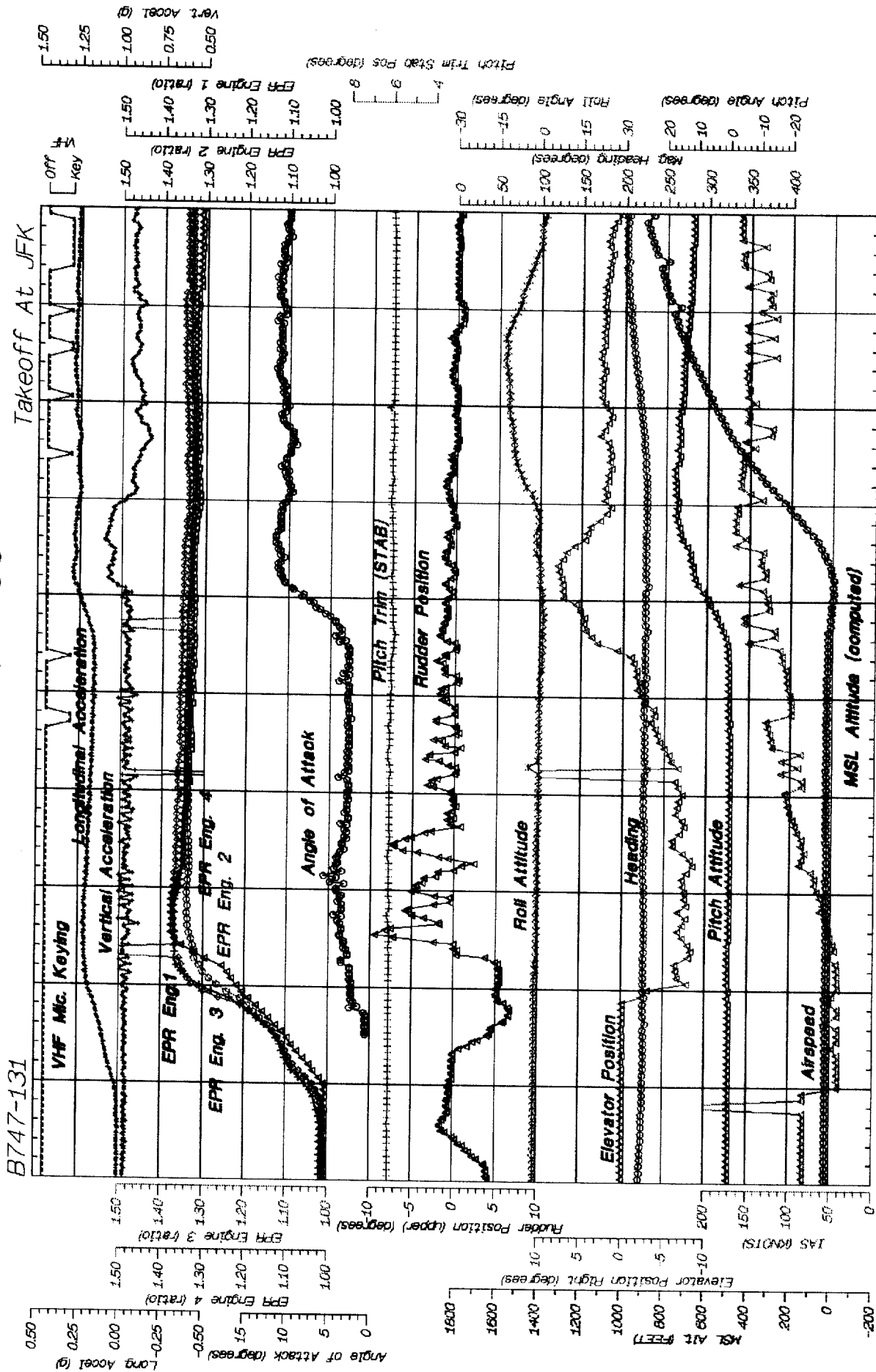
(43)

ATTACHMENT III

Data Plots



TWA Flt. 800



Plot No. 1

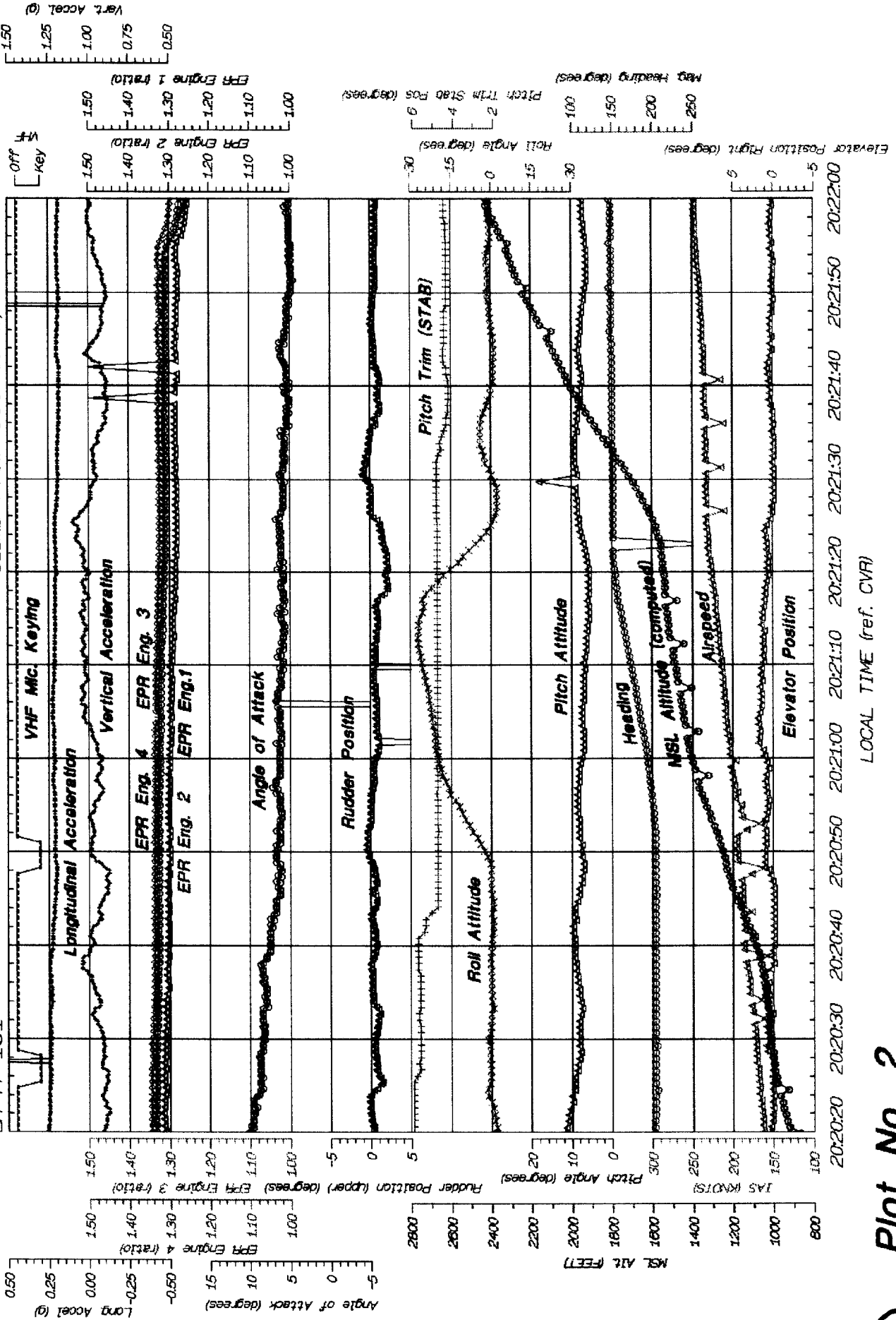
Revised: January 28, 1997

National Transportation Safety Board/ VPD

TWA Flt. 800

Climb From 800 to 2,400 feet

B747-131



LOCAL TIME (ref. CVR)

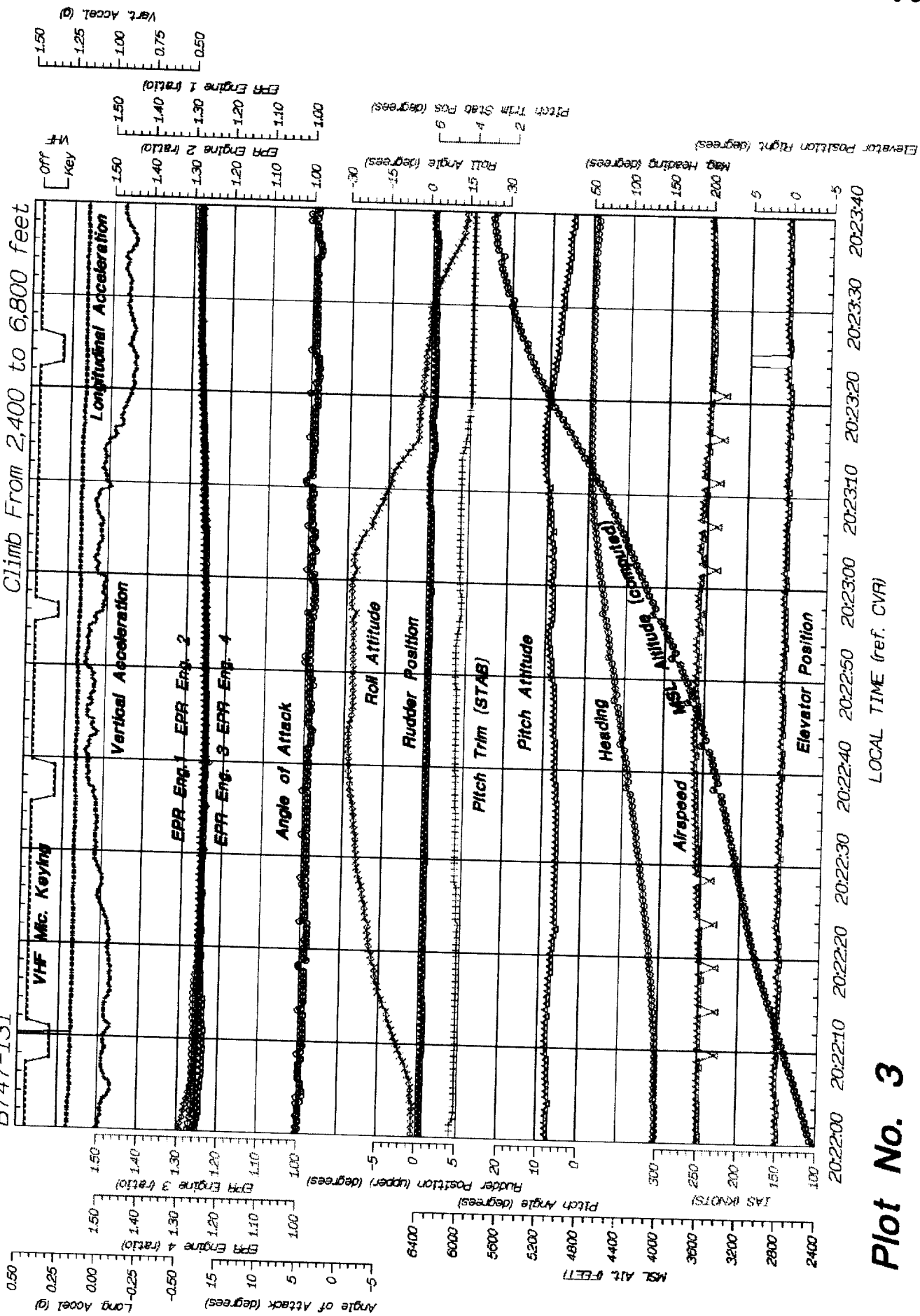
Plot No. 2

Revised: January 28, 1997

National Transportation Safety Board/ VPD

TWA Flt. 800

B747-131 Climb From 2,400 to 6,800 feet



Plot No. 3

Revised: January 28, 1997

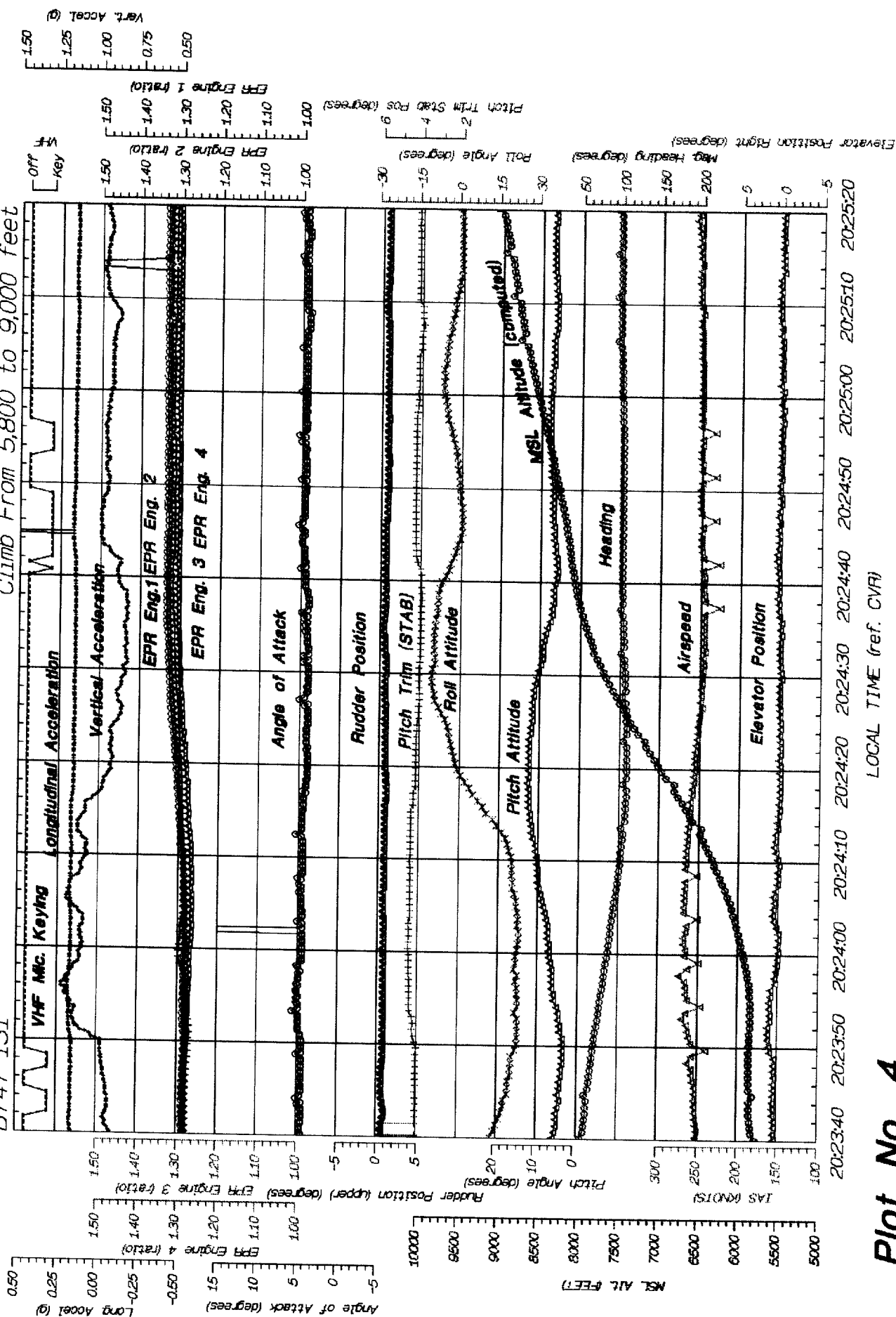
LOCAL TIME (ref. CVR)

National Transportation Safety Board/ VPD

TWA Flt. 800

B747-131

Climb From 5,800 to 9,000 feet



Plot No. 4

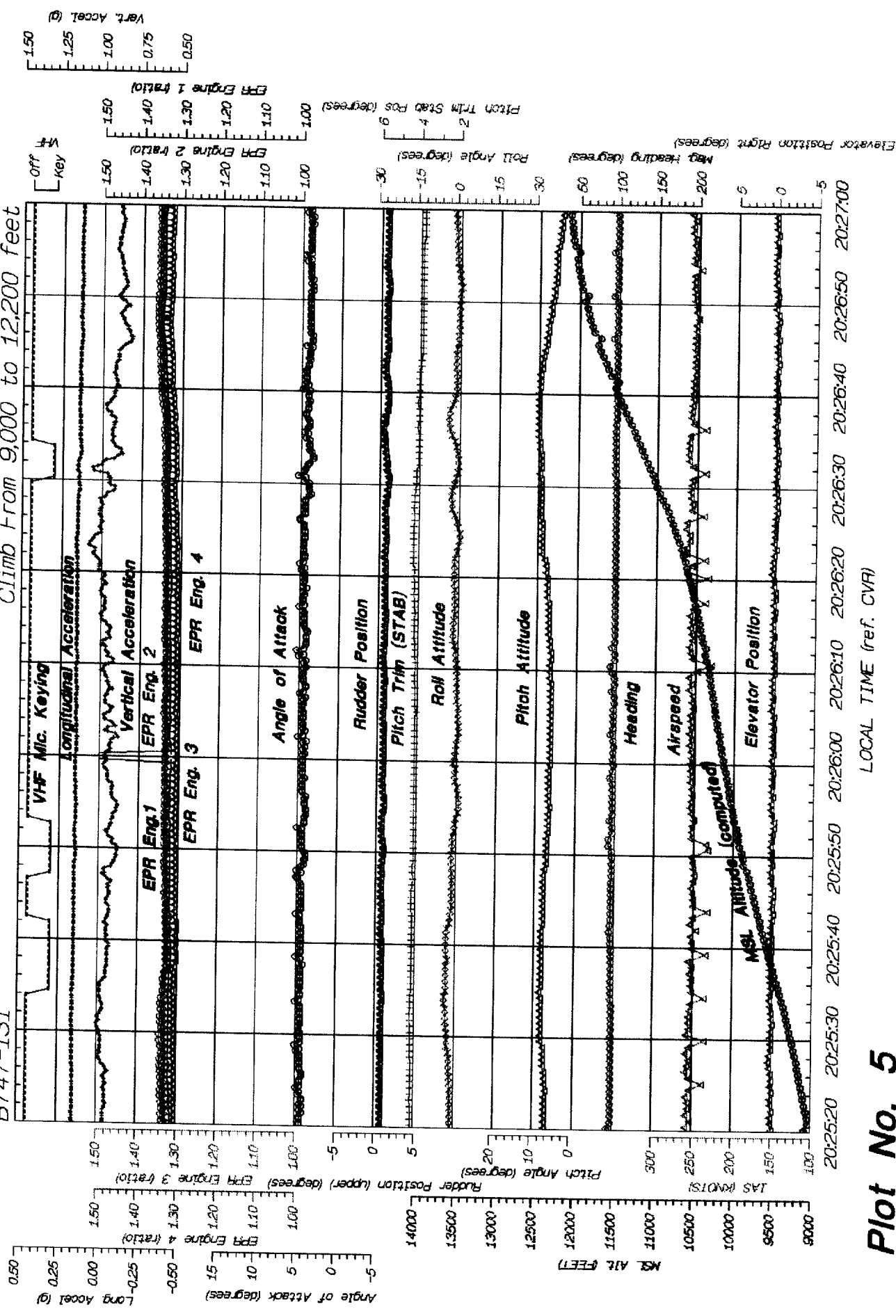
LOCAL TIME (ref. CVR)

Revised: January 28, 1997

National Transportation Safety Board/ VPD

TWA Flt. 800

B747-131 Climb From 9,000 to 12,200 feet



LOCAL TIME (ref. CVR)

Plot No. 5

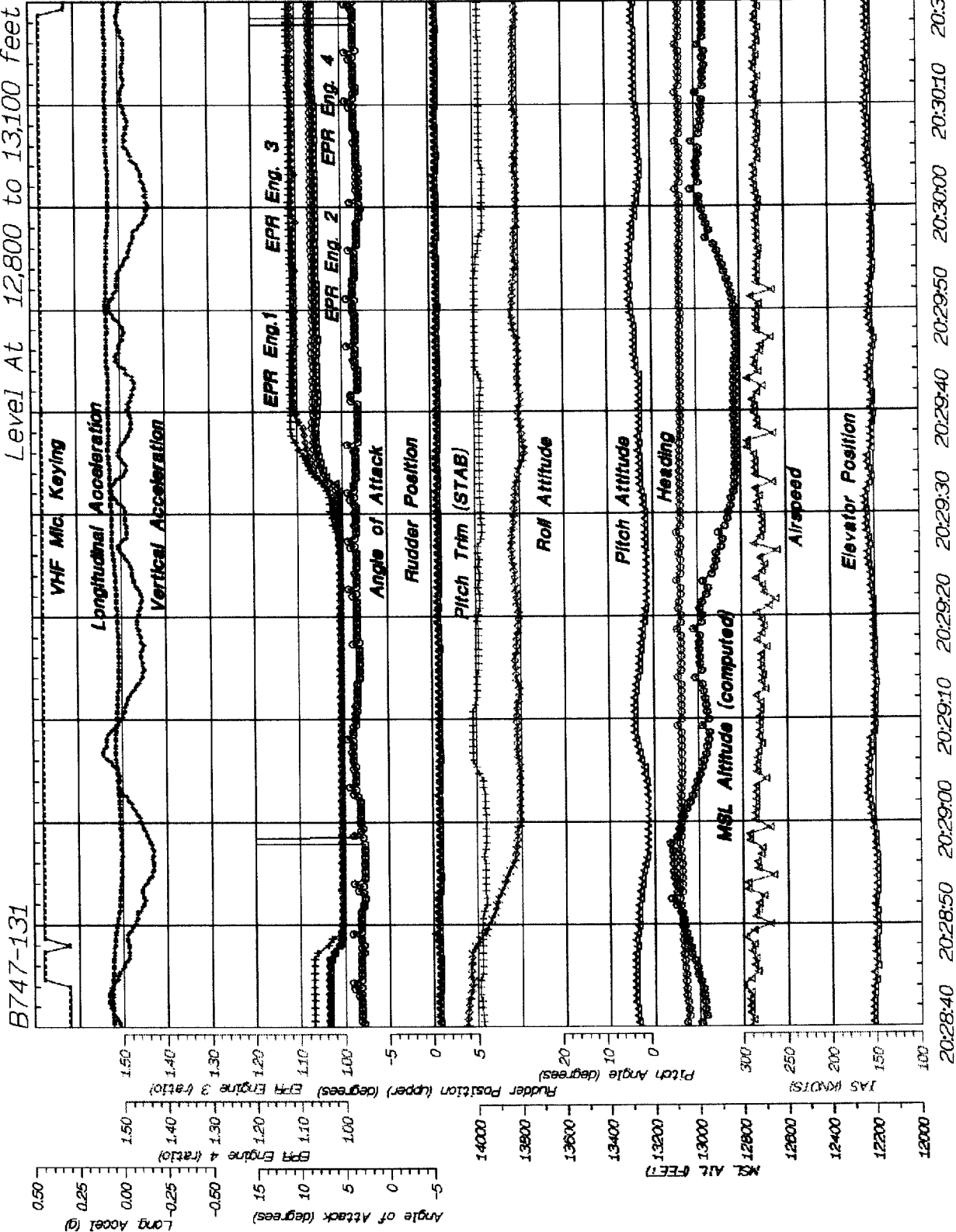
Revised: January 28, 1997

National Transportation Safety Board/ VPD

48

TWA Flt. 800

Level At 12,800 to 13,100 feet



Plot No. 7

Revised: January 28, 1997

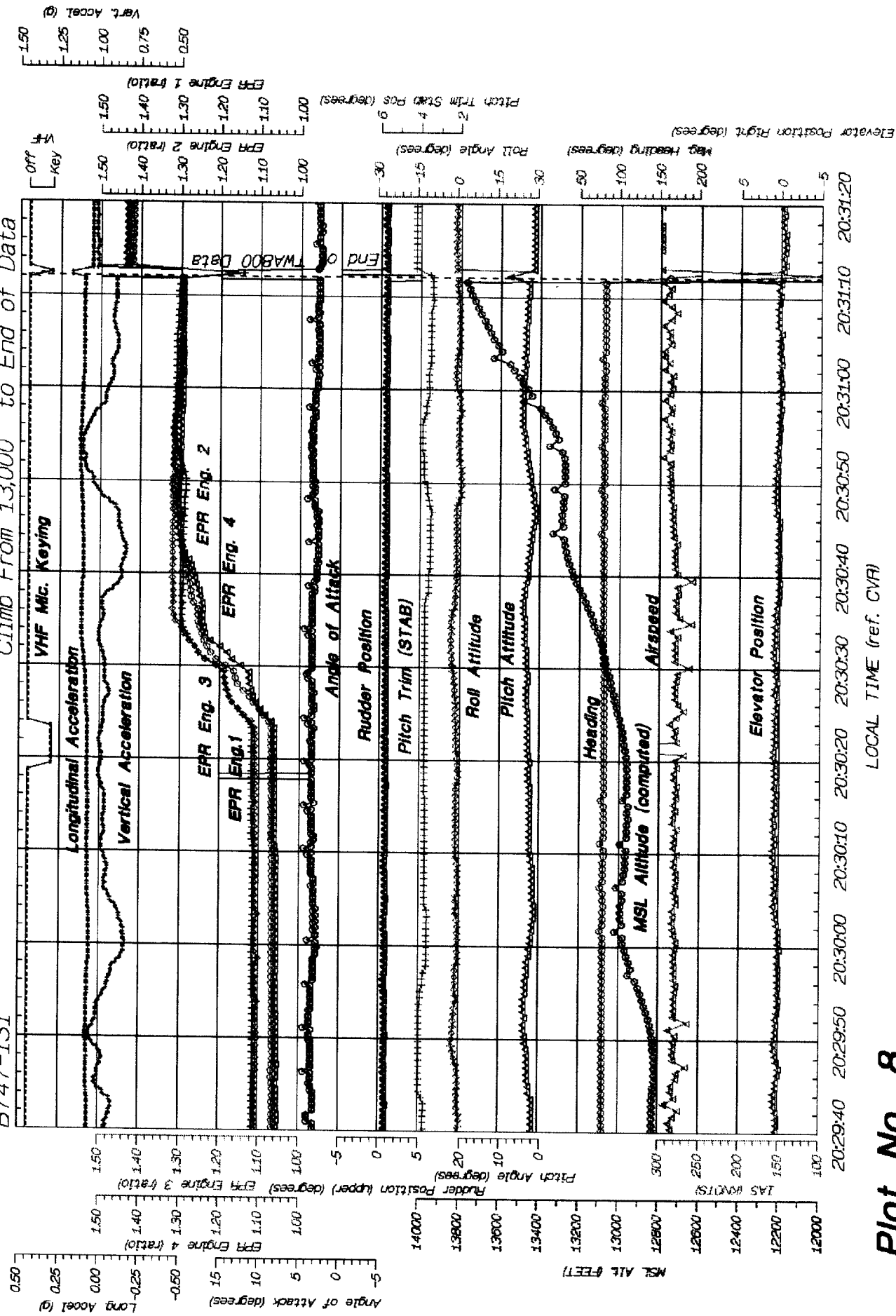
LOCAL TIME (ref. CVR)

National Transportation Safety Board/ VPD

TWA Flt. 800

B747-131

Climb From 13,000 to End of Data



Plot No. 8

Revised: February 04, 1997

LOCAL TIME (ref. CVA)

National Transportation Safety Board/ VPD